

Australian

JULY/AUGUST, 1979. ISSUE 97 Vol. 9 No. 4

90c*

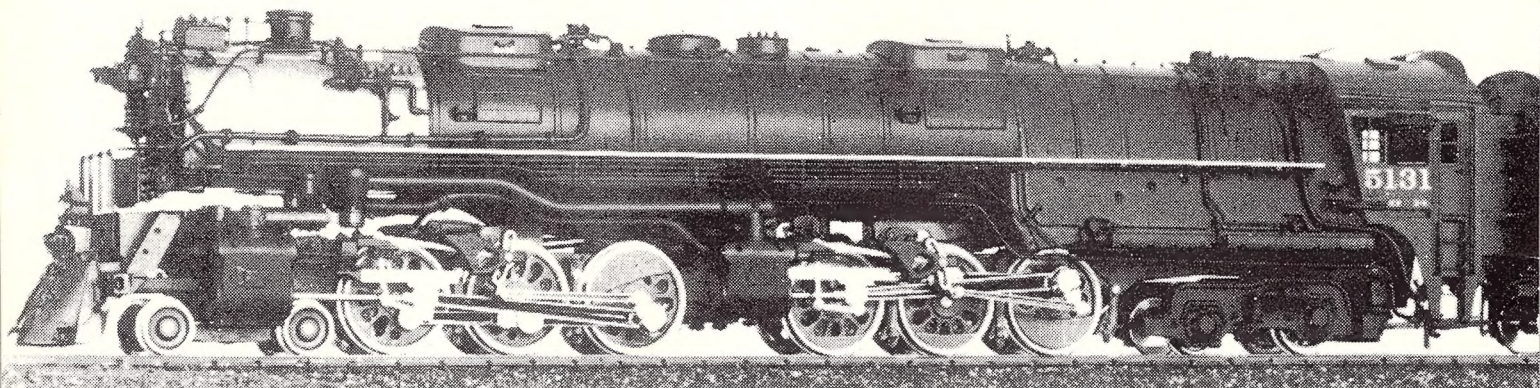
MODEL RAILWAY

Magazine



Registered for posting as a periodical, Category B.
Recommended retail price only.

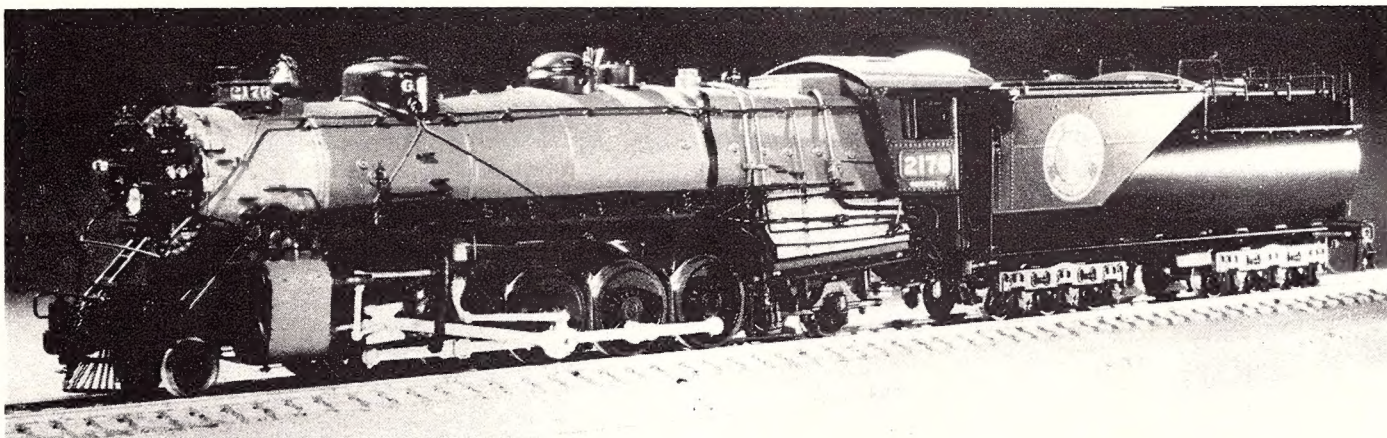
NEW MOTIVE POWER.... — NOW ON THE 'READY TRACK'....



SPACE DOES NOT PERMIT US TO SHOW MORE THAN THE BUSINESS END OF TENSHODO'S MAGNIFICENT NEW HO SCALE NORTHERN PACIFIC CLASS 'Z-8' 4-6-6-4 LOCOMOTIVE & TENDER, EQUIPED WITH 14 WHEEL LONG DISTANCE 'CENTIPEDE' TENDER. PAINTED & LETTERED. DUE LATE JUNE.



ALCO MODEL'S HO UP 3-UNIT OIL FIRED GAS-TURBINE LOCOMOTIVE BOTH CONTROL AND TURBINE UNITS MOTORED. ALL 24 DRIVERS GEARED. MODEL COMES PAINTED & LETTERED. PRICE: \$975.00.



FIRST TIME MODELLED IN HO SCALE! . . . THE GN 'Q-2' SERIES 2-10-2 LOCO BY SUNSET MODELS. LOCOMOTIVE COMES UNPAINTED. PRICE: \$323.00.

Other News from the Dockyard . . .

From Korea, in addition to Sunset's GN 'Q2' 2-10-2 pictured above, we are now in receipt of Key Models' HOn3 RGS 'C17' 2-8-0 @ \$282.50 and HO PRR 2-10-0 @ \$343.00, Sunset's HO N&W 'J' class 4-8-4 (Sold out) @ \$291.50 and HO UP 2-8-8-0 'Bull Moose' (sold out) @ \$424.50 and in O gauge, by Westside, the Santa Fe '3160' Series 2-8-2 @ \$666.00 and B&O 'Q4b' 2-8-2 @ \$759.00 To hand from Overland Models are the HO Milwaukee Road 'S3' 1950 version 4-8-4 @ \$315.00 . . . From Hallmark, due about the middle of the year are the HO Santa Fe

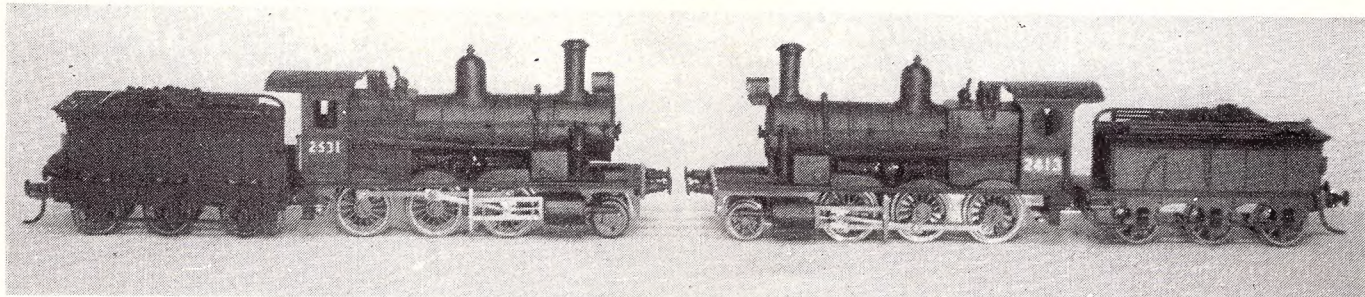
1369/1376 Series 4-6-2, in both Standard and Streamlined versions . . . Looking ahead, Japanese HO production in the second half of the year will include Alco Models' Alco C425 Diesel, EMD SD40-2 Diesel in both Standard and Long 'Snoot' versions and the Baldwin RT624 Transfer Unit. Also to come are the Chicago Surface Lines 'Big Brill' Car and from Custom Brass, the PRR class 'S1' 6-4-4-6 Streamlined Locomotive . . . Sunset Models 1st Edition Catalogue is now in stock @ \$6.15 per copy . . .

Continued on page 58. . .

SOLE AGENT & IMPORTER
THE MODEL DOCKYARD PTY. LTD.

216-218 SWANSTON ST. MELBOURNE. PHONES: 663 3505 & 663 4792

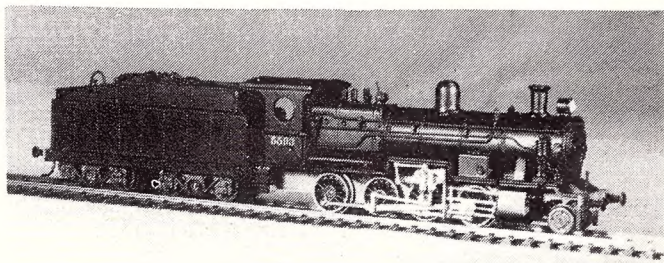
FSM



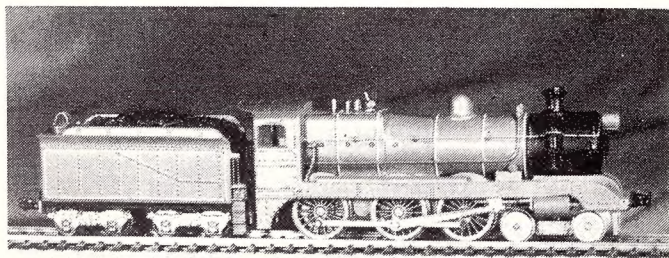
NSWGR Z25 Class locomotive and tender kit. HO scale. Redesigned. Standard or Extended smokebox, please specify. Posted \$80.00

NSWGR Z24 Class locomotive and tender kit, HO scale, Porthole cab, internally sprung tender. Posted \$80.00.

NSWGR Z18 Tank locomotive kit. Posted \$68.00.



NSWGR D55 Class loco and tender kit in HO scale. Standard Turrett tender. Posted \$124.00.



NSWGR C35 Class loco and tender kit in HO scale. Posted \$101.00.

The D53 Class and WAMPU Tender is in production and will be available with this issue. Imported items are to hand and dispatch times should be greatly reduced. The D53, D55 and C35 are now supplied with Lost Wax Investment Cast Nickle Silver Rods, also these kits will be available with choice of tender. Please specify. Our next planned kit will be the SMR 10-class tank, on which work has commenced. We regret delays in deliveries experienced up to date, but by this issue, all backlogs of Orders should have been overcome.

FINECRAFT SCALE MODELS PTY LTD (Established 1947)
P.O. Box 169. FORESTVILLE. N.S.W. 2087

SEND S.S.A.E. FOR OUR PRICE LIST
23 Tottenham St., Balgowlah. 2093

ONE OF QUEENSLANDS LARGEST RETAIL STOCKISTS OF BOTH HO GAUGE AND N GAUGE ELECTRIC TRAINS AND ACCESSORIES.

VALLEY TOYLAND and HOBBY CENTRE

OUR RANGE COVERS:—

HO GAUGE, LIMA, RIVAROSSA, JOUEF, BACHMANN, LIFELIKE, TYCO.

N GAUGE, ATLAS RIVAROSSA, MINITRIX, LIFELIKE, PECO, BACHMANN, LIMA.

SOME OF OUR KITS:—

KIBRI — POLA — VOLLMER — VAU-PE — JOUEF — AIRFIX — LIFELIKE — RATIO — ROUNDHOUSE — TYCO.

CUSTOMER SERVICE IS OUR AIM — IF WE HAVENT GOT IT, WE WILL TRY TO GET IT!

CALL IN AND SEE OUR RANGE. REPAIRS GLADLY DONE.

VALLEY CENTRE PLAZA, BRUNSWICK ST. 4006 Ph. 521005

Marklin HO



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HO & MINI CLUB
PIKO HO
BEMO HO
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Paintings a problem for you on your rollingstock?

Please write or call at the RAILWAY PAINT SHOP and ask for Greg who can assist you with your problems.

Prices as follows:

Spray Painting brass engines, including decaling and weathering\$20
Re Decaling & Painting only \$15
Weathering only brass & plastic locos and goods wagons etc. \$10
Painting carriages and goods wagons only \$ 5
Also live steam engines \$50 to \$100

THE RAILWAY PAINT SHOP
32 MILITARY RD,
MERRYLANDS. 2160
NSW Ph (02) 637 4126

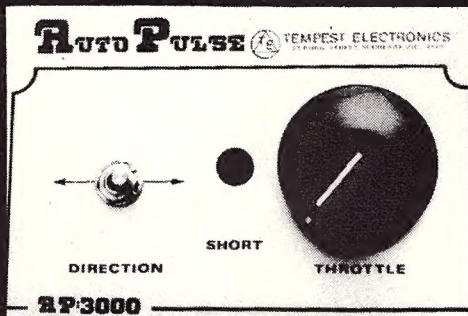
20% DISCOUNT

ON
BOWSER
ARBOUR MODELS
METAL LOCO KITS
CARY DIESEL BODIES
ONLY
WHILE CURRENT STOCKS
LAST.

TRAINS & TRACK
P.O. Box 177,
APPLECROSS, W.A. 6153

Electronic Throttle \$18.25

rec. retail price



TEMPEST ELECTRONICS
33 BORG STREET, SCORESBY, VIC. 3179

The smaller brother of our famous AP7000 throttle.

Features:

- Pulse power for slow speeds.
- Electronic circuit protection.
- Easy to install and operate.
- 2 year guarantee.

INTERESTED IN RAILWAY RECORDINGS?



VOLUME 6:
Mainline to Panther. \$7-95

O. WINSTON LINK.

VOLUME 1:
Sounds of Steam
Railroading. \$7-00.

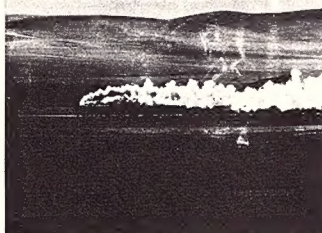
VOLUME 2:
The Fading Giant. \$7-00.

VOLUME 3:
Thunder on Blue
Ridge. \$7-00.

VOLUME 4:
2nd Pigeon & the
Mocking Bird. \$7-00.

VOLUME 5:
The General. \$2-50.
180 mm (7") E.P.

STEAM PANORAMA



Steam Panorama. 1st Division: \$6-00

Steam Panorama. 2nd Division \$6-00.
Helper Service. (Final Copies) \$7-00.

PUFFING BILLY



Puffing Billy in Stereo: \$2-00

MODEL RAILWAYS IN THE SYDNEY EASTERN SUBURBS

Range Includes:-

PREISER
AMRI Accessories,
ATLAS
HORNBY
LIMA
JOUEFF
LIFE-LIKE
ROCO track
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HOOPERS TOYS

474 BUNNERONG ROAD
MATRAVILLE, NSW.
2036. Ph. (02) 661 6615

Available From:

NOTE:

All prices include postage.



**STEAM ACTION
PRODUCTIONS**

P.O. BOX 75, ORMOND 3204.



BILL WEBB ALSO STOCKS

**MERTEN • VOLLMER KITS & OVERHEAD CATENARY •
RIVAROSSI • HAG • ARNOLD • MARKLIN ^{3 RAIL} HAMO • PECO
WIKING • KALMBACH • BUSCH**

Catalogues	Post Paid
ARNOLD N GAUGE	\$2.00
FLAISCHMANN. HO & N.	2.00
HAG — HO GAUGE	.70
HAMO HO 2 RAIL DC	.25
KIBRI KITS	1.40
LOCOMOTION CONTROLLERS	.25
MARKLIN 1978-79	1.50
PECO-HO	2.00
PECO-N	2.00
POLA KITS	3.00
RIVAROSSI — TO N. S. W.	8.65
— INTERSTATE	9.75
SEUTHE SMOKE GENERATORS	.25
VOLLMER KITS	\$1.45

Mention this advertisement and receive 20% discount off all Suethe Smoke Generators bought before 31-8-79. For brochure and price list send 25c. stamp.

Please forward

☐ PRICE LISTS	☐ MODEL No.
☐ DESCRIPTION	☐ CATALOGUE

I enclose \$ _____ postal note/cheque

NAME _____

ADDRESS _____

_____ P/Code _____

McBEES

McBEES HOBBY CENTRE

P.O. Box 144 is registered at 535 Plenty Road, Preston. Items in this ad are a selection only. Any other enquiries please write. We are a licensed secondhand dealer.

Our shop is located at:
**535 Plenty Road,
East Preston.**

Hours: Mon-Wed 4pm-7pm
Thurs, Fri 12 noon-9pm
Sat 9 am-1 pm.

PLEASE all Mail orders to
P.O. Box 144 COBURG 3058

POSTAGE RATES:-

Post and packing MINIMUM \$1.00

Additional charges:

On orders under \$5.00 Nil.

\$5.00-\$14.99 extra 50c

\$15.00-\$29.99 extra \$1.00

\$30.00-\$49.99 extra \$1.50

\$50.00 and over Nil.

Airmail extra \$3.00

Registered extra \$2.50



We welcome payment by **BANKCARD**.

Please include number, expiry date and authorisation and signature.

For fastest service order on our order form with general enquiries on separate sheet.

ODDS AND ENDS

We here at McBees notice with some bemusement two recent letters in the correspondence section of AMRM concerning magazine prices. Model Railroader \$1.55? We have always charged cover price on US magazines. Model Railroader, Railroad Model Craftsman are \$1.25 in our shop at least. We do charge \$1.15 for the British Railroad Modeller — but then the British have different ideas on marketing than we Americans, don't they? The latest addition to our magazine range is the well respected (and fine modelling magazine) **NARROW GAUGE AND SHORTLINE GAZETTE**. Published every second month this magazine contains something of interest for modellers of all scales and gauges. Price! US cover price naturally... \$2.25 per issue. Write for details of postage rates, etc.

SSLTD. Detailing Parts. The recent decision of this company to stop supplying the trade and sell "direct-to-customer" has led to a severe shortage of SSLTD parts on our shelves. Fortunately a saviour has appeared on the scene and purchased SSLTD lock, stock and barrel. The saviour? None other than Walthers. While it may take some time we plan to re-stock most of the range, which means there should be no need for Australian modellers to "go" without.

We hope Australian prototype modellers will find something of interest in the bogies and side frames featured in this ad. In production at the time this ad is being prepared are side frames for a VR 'Y' Class Diesel Loco. These sideframes are designed to replace the sideframes on an Athearn SW1500 — as such they are not exactly to scale, the SW1500 bogies are slightly over size for a Y Class. Further details of new releases appear in our NEWSLETTER which we post out 6 times a year at your request (The idea of charging for it never occurred to us!)

One item not included in the list of VR type detailing items on the next page is the HO Metal Casting of an Air Compressor of the type used on VR, J, K, N and H Class steam locos, 60c each.



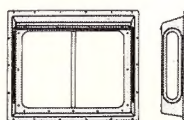
DETAIL ASSOCIATES

 Lift Ring, EMD
3.5" Eye Bolt
1101 pkg(36)

 Lift Ring, EMD
F & E Unit Nose
1102 pkg(6)

 Lift Ring, Flat
Mounts on Pilot Beam
1103 pkg(8)

 Lift Ring Tabs, Roof and Side
Hood Mount
1104 pkg(16)



All Weather Window,
Double Type for GP, SD
2301

DETAIL ASSOCIATES HO

Detailing parts for US and in some cases Australian Diesels. Illustrations above are 1½ times HO Scale. The list below is only part of the Detail Associates range and more additions are being made each month.

- 1101 Lift ring, EMD, 3.5" Eye Bolt (36) \$1.35
- 1102 Lift ring, EMD, F&E Unit Nose (6) \$1.35
- 1103 Lift ring, Flat, mounts on pilot beam (8) \$1.15
- 1104 Lift ring Tabs, Roof and Side Hood Mount (16) \$1.15
- 1201 Bell, EMD Cab Mount (2) \$1.15
- 1301 Cab Sunshade (6) \$1.35
- 1302 Cab Sunshade F&E Units (8) \$1.35
- 1501 MU Stand EMD Early GP Type (2) \$1.15
- 1502 MU Stand, EMD Early GP Type high (2) \$1.15
- 1503 MU Stand, EMD intermediate GP SD single (2) \$1.15
- 1504 MU Stand, EMD intermediate GP SD double (2) \$1.15
- 1505 MU Stand, EMD Late GP, SD Type single (2) \$1.15
- 1506 MU Stand, EMD, Late GP, SD Type double (2) \$1.15
- 1508 MU Air Hoses (16) \$2.00
- 1601 Air Horn, 3 Chime Nathan M3 (2) \$1.70
- 1602 Air Horn, 5 chime Nathan M5 (2) \$1.70
- 1801 Radio Antenna, Can Type for AT&SF, UP and others (6) \$1.15
- 1802 Radio Antenna, Whip Type for SP and others (6) \$1.15
- 1804 Radio Antenna, Wagon Wheel Type Photoetched Brass with plastic castings (3) \$3.40
- 2201 Grab Irons, Scale Size (includes Plastic Nut Castings) (18) \$2.25
- 2202 Grab Irons, Scale Size (Formed Wire) (48) \$3.05
- 2203 Hex, Nut, Bolt Washer Castings (72) \$1.35
- 2207 SD7/SD9 Ladder Kit (4) \$3.55
- 2301 All Weather Window, Double Type for GP SD Diesels (2) \$2.00
- 2701 Air Intake Grille, "Farr" F&E Units Photoetched Stainless Steel (2) \$4.10
- 2702 Alco 64" Cooling Fan Grille Photoetched Metal (2) \$3.05
- 2703 Alco 57" Cooling Fan Grille Photoetched Metal (2) \$3.05

KADEE COUPLERS

We have full stocks of HO, O, HOn3 coupler types — all priced at \$2.50 a packet EXCEPT No 5's which are \$2.20. N Gauge KADEE Couplers (No. 1023) are \$3.85 a packet. In all cases a 10% discount applies when 10 or more packets are purchased at a time (may be mixed). In HO, HOn3 and N there are enough couplers per packet for 2 cars or wagons while in O there are enough couplers for only one. N Couplers are supplied assembled.

KADEE HO COUPLERS

- No 4 All metal coupler 2 pair
- No 5 Universal coupler 2 pair
- No 6 Long shank coupler 2 pair
- No 7 Underset Long coupler 2 pair
- No 8 Medium length coupler 2 pair
- No 9 As for No 5 but intended for bogie mounting 2 pair
- No 711 3/4 Size for old time equipment 2 pair
- No 13 Coupler test kit \$10.50
- No 16 is the No 6 coupler with the No 7 draft gear 2 pair \$2.50
- (No 16 is for use on vehicles with buffers.)

HO COUPLER ACCESSORIES

- 205 HO Coupler Height Gauge \$3.85
- 208 Truck Spacer Washers .015" thick .90c
- 209 Truck Spacer Washers .010" thick .90c
- 231 Grease-em dry Lubricant \$1.60
- 235 Spring Pic Tool \$1.60
- 236 Speedi Driver Cleaner \$8.15
- 256 Roundhead Delrin Screws, \$2.56 \$1.50

HO KADEE COUPLER CONVERSION BOLSTERS

- No 505 For AHM and Rivarossi 6 wheel Pass. Trucks pair \$3.10
- No 507 For Central Valley 6 wheel Pass. Trucks pair \$3.10
- No 508 For AHM and Rivarossi 4 wheel Pass. trucks pair \$3.10

KADEE HO UNCOUPLERS

- No 307 HO Magne-Electric ea \$8.25
- No 308 Under Track type ea \$2.50
- No 321 Between Rails type ea \$3.60

HO TRUCKS AND WHEELS

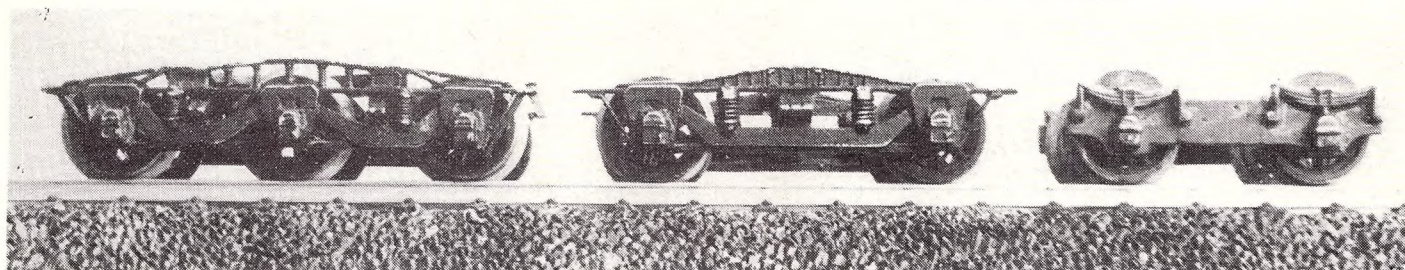
- No 500 Bettendorf pair \$3.25
- No 501 Archbar pair \$3.25
- No 502 Bettendorf with couplers pair \$4.55
- No 503 Archbar with couplers pair \$4.55
- No 509 Andrews pair \$3.25
- No 510 Andrews with couplers pair \$4.55
- No 520 12 prs. 33" Freight Car Wheels \$4.50
- No 521 12 prs 36" Pass. Car Wheels \$5.50
- Plus a large range of accessories, spare springs, etc.

KADEE N GAUGE

- No 1023 Couplers assembled 2 pair \$3.85.
- A 10% DISCOUNT applies on orders of 10 or more packets of N gauge couplers.
- No 1055 'N' Standards Gauge \$5.20
- No 1310 Perm magnet uncoupler pair \$2.85
- No 1039 Electro-magnet uncoupler ea \$7.75
- No 1000 Bettendorf bogies with couplers pair \$3.15
- No 1001 Bettendorf bogies without couplers pair \$2.00
- No 1007 Wheel, ribbed back, tapered axles 12 pair \$3.45
- No 1010 Archbar bogies with couplers pair \$3.15
- No 1011 Archbar bogies without couplers pair \$2.00
- No 1030 Roller Bearing bogies with couplers pair \$3.15
- Plus a large range of coupler conversion kits for N locomotives.
- Write for KADEE lists and information leaflet. Don't forget to state which gauge.

Remember KADEE prices shown above are not "specials". They are our normal KADEE prices.

NEW — FROM McBEES — V.R. PROTOTYPE BOGIES



Illustrated above are HO models of VR prototype bogies. From left to right 'E' series Carriage 6-wheel; 8' Diamond Frame Carriage 4-wheel — as used on PL and V series cars; and 4-wheel bogie as used on Q, QR, N, NM Wagons. The bogies are white metal castings and are supplied as kits. Each Kit contains 4 side frames, 2 bolsters, 6 or 4 axles of Cavalcade Miniatures 10.5mm 8-spoke wheel sets and, for the E Series bogie, material for end bracing. All the following items are in stock at the time of preparing this ad. All items are HO.

VR 6-wheel 'E' series bogie kit (pair) \$6.00
VR 4-wheel PL, V, series bogie kit

(pair) \$5.25

VR 4-wheel Q, QR, N, NM Wagon bogie kit (pair) \$5.25

VR Sideframes only for A, C, D, J, K, and N Locomotive Tenders

(4 sideframes) \$2.40

VR Axle boxes for short wheelbase

4-wheel wagons (GY etc.)

4 axle boxes \$1.20

VR "Long" Axle Boxes 'Z' Vans, some 'T' Vans etc. 4 axle boxes \$1.20

Other VR type products are in the planning stage. Also well advanced is the new South Australian building kit from the manufacturer of our recent SAR Goods Shed. Further details will appear in our ads when firm release dates are known.

McBees welcome suggestions for products you, the customer, would like to see produced. We also like to hear from anyone who has a product of Australian Prototype they would like marketed. (Continuity of supply, along with quality, are the prime requirements).

Also Australian, from TENWHEEL DRIVE are Advertising Billboards. Full Colour Photographic reproduction — not printing. TWD100 HO 3 signs. Dodge Trucks, Stegbar Windows, Coca-Cola.

TWD101 HO 3 signs. Benson and Hedges, Chrysler Sigma, C.U.B. Victoria Bitter.

TWD200 N all 6 signs described above. All one price \$2.15 a sheet.

Don't forget the excellent and extensive range of MnJ Decals in HO and N.MnJ continue to improve and enlarge their range. Anyone building an Australian Oil, Petrol or Bitumen Tanker should welcome the range of MnJ Decals which includes: Atlantic, Mobilgas, Ampol, Golden Fleece, Caltex, Texaco, Plume, Neptune, Total in Yellow, Red, Black or White as appropriate. All are \$1.00 a set. MnJ decals lists are available on request. Despite delays due to retooling the range of wheelsets from Cavalcade Miniatures is still available from us. Included in the range are 9mm 8-spoke, 10.5mm 8-spoke, 10mm 8-spoke and 12mm 8-spoke. All priced at 70¢ per pack of 2 axles.

BOOKS

For Southern Pacific fans two new releases in stock are:—

BAY AREA STEAM a collection of vintage and often rare photographs of S.P. steam locos in the San Francisco Bay Area of California.

144 pages — 202 photographs \$19.95

Southern Pacific Review 1977 — successor to the Motive Power Annual series — featuring EMD Switchers on the SP \$10.95

For Union Pacific fans:—

Union Pacific Railroad Passenger Cars Volume 1. 1950-1964 \$21.60

Turbines Westward \$18.65

and for the Santa Fe fans:—

Santa Fe — Steel Rails Through California by Duke and Kistler \$14.45

and one for us Aussies:—

Steam in Australia \$7.90

KALMBACH BOOKS

All about signals \$2.50

HO Primer \$4.00

Track Planning for realistic operation \$4.50

764 Helpful Hints \$3.50

Bridges and Buildings \$3.50

Scenery for Model Railroads \$5.00

N Scale Track Plans \$3.00

Track Plans for Sectional Track \$2.50

How to Wire your Model Railroad \$4.00

101 Track Plans \$4.00

Small Railroads you can Build \$4.00

Easy-to-build Structures \$5.00

HO Railroad that Grows \$4.00

Practical Guide to Model Railroads \$3.50

Easy-to-build Freight Cars \$3.50

N Scale Primer \$4.50

Traction Guidebook \$4.50

Practical Electronic Projects \$4.00

Railroads you can Model \$4.00

How to Operate your Model Railroad \$14.45

The Westinghouse Air Brake Story \$3.00

Popular Model Railroads you can Build \$6.45

1928 Handy Railroad Atlas of the United States \$5.45

Scratchbuilding and Kitbashing Model Railroad Stations \$5.45

More Railroads you can Model \$5.00

The ABC's of Model Railroad \$4.50

Building Plastic Models \$4.00

Our GM Scrapbook (Soft cover) \$8.50

The Second Diesel Spotters Guide (Hard cover) \$10.25

Journey To Amtrack \$9.50

NEW! The wit, whim and (best of all) wisdom of John Armstrong on Creative Layout Design. Over 120 pages of ideas, prototype and model photos, tabular data, track plans \$12.45

FLOQUIL PAINTS

POLLY-S water soluble paints for styrene, wood, plaster or cardboard. Thin with water. Easy clean-up.

1003 Dust

1006 Metal Primer

1010 Black

1012 Reefer Grey

1020 Caboose Red

1031 Reefer Yellow

1048 Coach Green

1069 Dirt

1073 Rust

1005 Flat Finish

1009 Wood prime-seal

1011 Reefer White

1015 Oily Black

1030 Reefer Orange

1045 Pullman Green

1058 Blue

1070 Roof Brown

1074 Box Car Red

All 1 oz bottles, per bottle \$1.40

Polly-S colour chart 60¢

FLO-STAINS

Stains for Stripwood etc.

120 Driftwood

122 Natural Pine

124 Maple

126 Walnut

128 Teak

121 Rosewood

123 Oak

125 Cherry

127 Mahogany

All 1 oz bottles, per bottle \$1.15

From DYNA MODELS of the USA

1908 Buick

1909 Stanley Steamer

1911 Maxwell

1914 Stutz Bearcat

1916 Twin Six Packard

1947 Ford Pick-up (ute)

Dyna Models are metal kits and come unpainted at \$3.25 (except the 1947 Ford Pick-up which is \$3.85) or painted at \$6.45 each. Also available is the Coal Conveyor, painted, at \$3.85

From JORDAN PRODUCTS of the USA

1920 Fordson Farm Tractor (kit) \$2.30

1920 Fordson Industrial Tractor (kit) \$2.30

ATLAS HO PLASTIC KITS

65' Plate Girder Bridge \$2.80

65' Warren Truss Bridge \$2.80

65' Deck Truss Bridge \$2.80

Water Tower \$4.20

Signal Tower \$4.20

Elevated Gate Tower \$2.10

Telephone Shanty and Pole \$1.40

Passenger Station \$5.60

Station Platform Set \$2.10

Refreshment Stand \$2.80

Lumber Yard and Office Building \$4.90

Telephone Poles (12) \$1.30

Station Figures — unpainted (24) \$1.75

POSTAL ADDRESS:

P.O. BOX 144

COBURG, 3058

VICTORIA



McBEES

Hobby Centre Pty. Ltd.

MAIL ORDER SPECIALISTS

TELEPHONE (03) 478 0038

Over Thirty Years.....

Thirty years ago many Railway Modellers hadn't even been born, and many who had been, were not then Railway Modellers. We usually base our Birthdays on the date of first sale which occurred about twenty months after our formation, but 9th August 1949 is still a significant date, being the date of formation of the business.

Back in those early days, as was found out the hard way, there were very few Railway Modellers in Australia probably less than one thousand and only two hundred odd came to light in the first sweep. The business was built on a dream.... an ideal... which has only partly been realised. The dream envisaged that the spareable profits of the business would be used to help Police Boys' Clubs and other Clubs working with the youth of the big cities to keep them off the streets and to give them a worthwhile hobby.

Experience showed that before there could be any donatable profits there'd have to be a viable business. It hadn't long started to make efforts to introduce the hobby to Australia in HO/00 when import restrictions were imposed and, for twelve hard and unprofitable years, the business struggled to even exist. In 1965, with the lifting of restrictions, giant strides were made and upon the introduction of N Scale the hobby began to gain rapidly in numbers till to-day there are probably 60,000 followers in Australia. Over the long period of nearly thirty years A.M.C. has been bringing the message of the hobby by means of the written word and, in the seventies, by attendance at Exhibitions. Forever, this hobby is a good hobby and it teaches whilst it protects the health of those who follow it.

What of the earliest dream of the founders? Yes help has been forthcoming, but not as much as they would have liked..... because Clubs, it was found, often managed better by their own endeavours than they ever did by charitable assistance from any one source. There are many and great Model Railway Clubs in the world but it always comes back in its basics to the hobby being for the loner working at home. The loner often includes family members and this is probably when it is as its best.... when binding the members of a family together in a common interest and a common purpose.

Always, it has been A.M.C.'s purpose to give assistance to those engaged in the hobby and to give honest replies to enquirers.... to carry good quality lines and to price them at moderate levels..... neither too high as to make the profit a prime objective.... and not so low that the business couldn't carry out its main purpose.

As part of our celebrations of our 30th Birthday, we offer to hobbyists on a mail order basis some lines at special prices and we announce a change of policy, namely, that we will in this year sell goods by Mail Order with enthusiasm..... whilst still telling you that the best way is to see goods before you buy, that is seeing them at one of the A.M.C. Accredited Stockists. As a further part of our being happy that we have existed for thirty years we will have a number of give-away items this year to surprise you and please you. Keep your eyes open for them.

Thirty years ago, the only hobby shops, with whom we deal to-day and which were then in existence are Hobbyco Pty. Ltd. in Sydney, Austral Modelcraft in Brisbane, Jack Stanbridge in Perth and Model Dockyard Pty. Ltd. in Melbourne. We are offering each one of them an A.M.C. 30th year Special to offer to you, if they care to take it - and that at this point in time isn't certain.... but you could ask.

A.M.C. would like to think that their contribution to the expanding of the Model Railway Hobby in Australia was all important and, certainly its continual help to those in need and, its continual range of publications has contributed very greatly to the present state of affairs. However, in the early, middle and later state of affairs, so many others have contributed so much, that we could all agree that it has been a community effort. Considering Australia's outdoor living climate and our lack of that upper strata of wealthy titled people who are interested in trains so common overseas it may be considered unlikely that Australia could have so many Railway Modellers. Most Railway Modellers are working people and they need the hobby to give them relief from the cares of office and take their minds off their worries.

To all those who have made contribution to the hobby over the years, we say 'thank you' and good work. For our own part we expect to be here for a while yet. May we be allowed to continue to bring help where help is needed and to continue to give service to hobbyists and the Retail Trade. Some of this help will be by the continuation of our printed publications.

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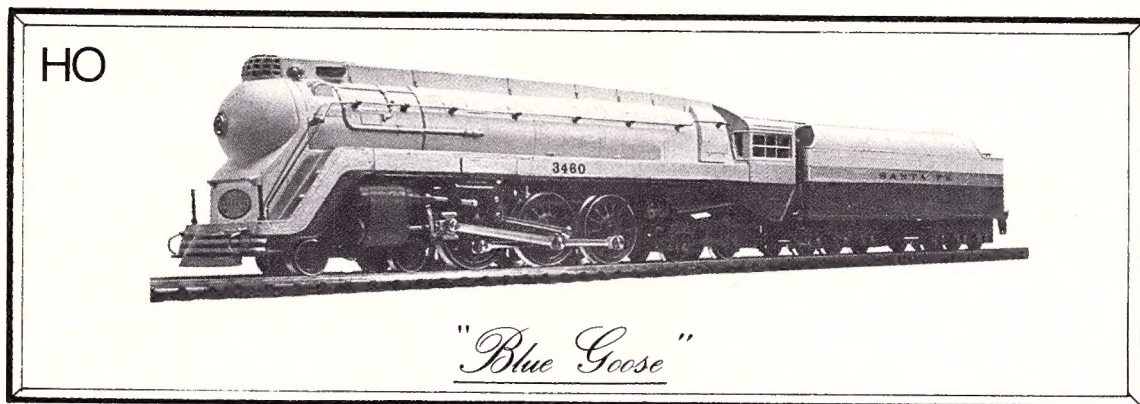
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COMMENT

NOTEBOOK AND CAMERA

'Gee I wish I'd got a photo of that.' It happens to nearly everybody. We look at a subject year after year, yet the day we approach it with camera and notebook in hand we find it has been pulled down. A rapidly fading memory is no substitute for concrete photographic evidence and notes made on location.

If you own a camera — any sort of camera — make a point of running off a roll of film at any feature of historical interest around you. You may have no immediate use for the information but do any of us know what form our modelling interests will take in 20 years time? Those negatives will be permanent records for long beyond that time.

There are still many features around that are approaching the end of their life. For instance, Perth Railway Station is almost a step back into the 1920s. Horseshoe bridges designed for horse and buggy traffic, some-

sault semaphore signals, extensive mechanical interlocking, nineteenth century architecture almost untouched and numerous wrought iron structures are especially appealing features that are still in daily use. One is reminded of more leisurely days when one sees station staff still polishing the brass platform fittings and walking the yard with oilcan and grease stained rag on daily maintenance.

When photographing structures do not forget the details: framework, — doors and windows, ventilators, etc., and get both sides of each building if it is physically possible. If you are shooting trains do not forget what is behind the much photographed head end. And while you are on individual items of rolling stock, roof and underframe detail is just as important as the sides.

Get your film developed and printed onto postcard size prints. Negatives on their own get easily forgotten in the back of cupboards over the years. Label each negative roll with a consecutive number and write the roll and frame numbers on the back of each print. The date is also important, and also the place, for fixing historical accuracy in years to come.

Ross Hurley



Garry Atkinson's HO model of a coastal terminus features in Comment page this issue. This was one of the layouts visited during the Waitemata Convention held in Auckland at Easter, 1978. The layout is freestyle with New Zealand type structures and American locos and rolling stock. The photograph was taken by Jack Parker. The natural stance of the figures adds greatly to the scene. There is a high tide mark around the rocks and piles. The wharf in the background has sidings on it.
More photos of New Zealand models on page 32

ON THE COVER: In December, 1969 a regular duty for 3813 was the "school train". The loco would leave Gosford depot about 7.30 am, pick up a string of wooden cars from the racecourse branch and then proceed to Wyong without stopping. The train would then return to Gosford, stopping at all stations. Most of the passengers were children headed for schools at Gosford. Our photo shows the big green engine resting in Gosford loco depot immediately after one of these trips. Photo: Jack Parker.

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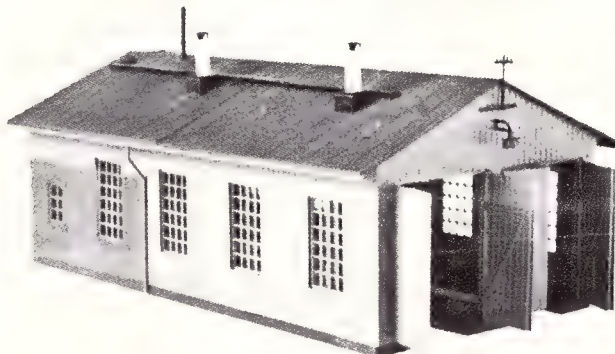
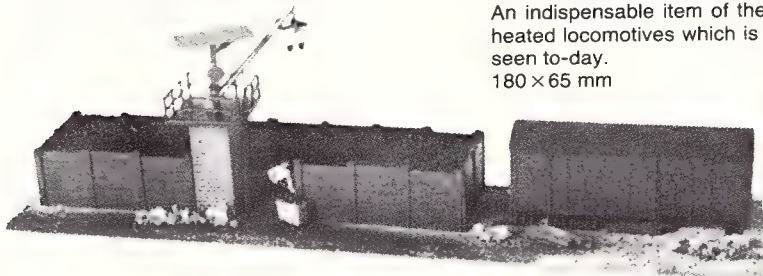
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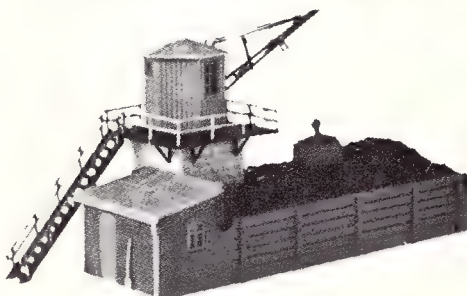
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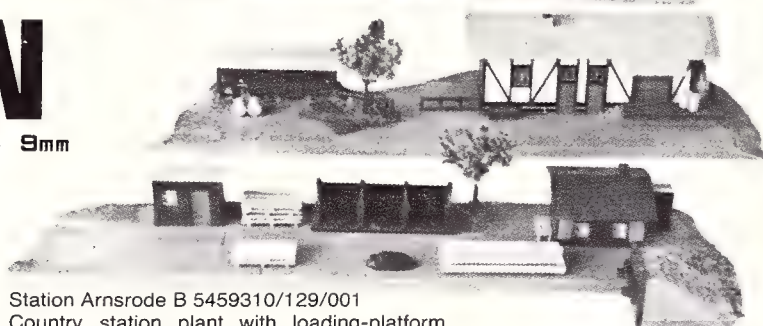
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THE SHERWOOD SHUNT

Another in the ABLO series by Gordon.

As we coasted down the grade from Taggarts Hill I was thinking that I'd be glad when summer came and it would still be light and warm when knock-off time came around. It was 3.30 in the afternoon of a sunny winter's day as I leaned out the window watching the train swing around the right hand curve towards Sherwood Station.

We slowed past the Abattoirs and the engineer gave a blast on the whistle. I was the guard on this local freight working on the Moping Branch Railway. The engine disappeared then reappeared as we sneaked off the main line onto the number 2 track. The Station Porter was standing beside the point lever mechanism ready to throw it back to the mainline position as soon as the brakevan cleared. I gave him a nod as we passed. In one practised movement he bent down, flung over the lever and locked it.

When we'd stopped I stepped down and greeted Stationmaster Sam Goldsworthy and we got down to business. Behind our engine 839 we had a DWF loaded with bagged cement for the freight shed at Sherwood, a DS van loaded with machinery parts bound for Ogla which is the next station, a tank of diesel fuel for Moping Junction and several station wagons for stations beyond. I told the SM there was one off and he explained that a load of cattle was almost ready to be taken to Curlew Creek. He wanted the mainline clear in time for a railcar due at 4.30.

I walked up to the loco with Steve the Porter and explained everything to Bob Bridgelow, the Driver. I then uncoupled the DWF from the DS and signalled Bob forward. Steve sprang onto the step as the DWF eased back through the points leading to the freight shed. Before the loaded van could be pushed in however an empty OB gondola had to be removed. Bob, signalled on by Steve pushed the van until it coupled to the OB then moved forward. Steve threw the switch and the OB was left on the spur leading to Caspor and Spooks as it was carded for a station behind us. Now it was

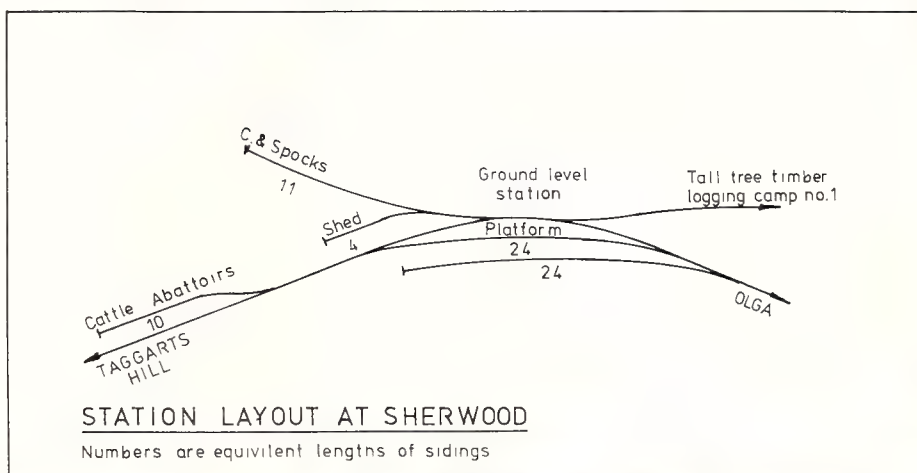
forward and back to place the DWF against the shed platform as the local storekeeper was due to collect the bags fairly soon.

By the time Bob had finished the movements it was 4.25 pm. The railcar had left Ogla so Bob waited on the back track with his train remarshalled and Steve went forward and set the mainline. The train order board clanked into the vertical position as the railcar came within earshot as it worked up the grade. It rumbled to a halt at the platform and I followed Sam as he walked down to check that everyone got on and off without too much trouble. A quick wave to the Guard as with a short honk the 75 class Brill headed off towards Taggarts. I walked briskly into the wooden station building to finish my paper work in the warm. Steve had reset the track so that we could leave the brake van and push the DS, tanker and an RB back to the cattle siding where a CS cattle van loaded with 10 restless beasts was waiting. It wasn't long before Bob had recoupled to the brakevan. Moments later

Steve had joined us beside the fire and said my train was ready to leave

I walked to the loco and, after a few words with Bob I walked back to my van checking the hoses and couplings as I went. The Stationmaster gave the all clear and after the van lurched forward I gave the second rightaway. It was warm in the brakevan as we went downgrade toward the unattended Ogla and more shunting in the cold.

In the first article of this series Kev Loughead suggested that we should think how the prototype railway would handle the job we are about to do. This tale of the Sherwood shunt occurred on a model railway and the operator has shared his ideas with us. Most of what happens has a modelling parallel. The operator acts as Guard, Driver, Stationmaster and Porter combined. The waybill cards tell which wagon is to be set out and which is to be added. The schedule tells the arrival of the railcar and local rules say which is the



The freight has halted on the loop and in an hour a railcar is due to use the track on this side of the platform after arriving from Ogla which is to the right of this scene.



Before the DWF can be placed in the freight shed an empty OB has to be removed.

mainline that has to be left clear. The guard's paperwork becomes the turning over of destination cards and rearranging of those in

the hold boxes while checking the couplers and hoses is like checking that we have all the wagons required and that the train is

complete. Yes it is embarrassing to get to the next station and find you have one wagon too many.

The DWF van is ready for the local storekeeper to unload and the OB is set for another freight to pick up. The engine is moving forward before coming back onto the train and hauling it onto the loop to clear the main line for the railcar to proceed.





Later the train reverses past the Abattoir to collect a loaded cattle van. Photos by Murray Billett.

MOTOR VEHICLES

The January and February, 1978, editions of *Model Railroader* carried articles on modelling modern American trucks and construction equipment. The articles got me thinking about what was available in Australia for the Australian modeller and, being the father of two small boys, I have had a lot of exposure to toy cars and trucks. With these qualifications I thought I might share, with you, a little of what I have discovered. I must state at the beginning that, because I live in the country, I am a bit isolated and the only way I can keep up with what is available in the model world is via the pages of magazines and the few items that appear in the local toy shops. Sometimes, therefore, it might turn out that I am talking through my hat.

The cars and light-commercial vehicles commonly found on Australian roads are virtually non-existent in both the model and toy world, with two notable exceptions. Matchbox, in their 1973 range, produced number 97, a Ford F100 truck; number 60, in their 1977 range, is a tarted-up Holden utility carrying two motorcycles. Unfortunately both models are larger than H0 scale and dwarf H0 scale models. Medium and heavy-commercial vehicles found on our roads are more readily found in the model and toy form for most prototype models are imported from overseas. Wiking scale models of European prototypes are available as are Athearn and Ulrich scale models of U.S. prototypes. While I am not sure if the last two manufacturers are available in local hobbyshops, I do know that they are easily obtainable, via mailorder, from overseas. For those who, like myself, don't get to a hobbyshop often, or are unwilling to order from overseas, there is an alternative. However, to use this alternative the modeller must be willing to make some compromise in scale.

My sons have a number of toy cars and trucks manufactured by the British firm, Mettoy Co. Limited, these toys are marketed under the brand-name Corgi Junior. When looking for vehicles suitable for my layout

I ran a scale rule over some of my sons' Corgi Junior toys and struck oil. While the cars are too big, most of the commercial vehicles are much nearer H0 scale.

I have found six, in particular, that seem suitable for inclusion on a H0 layout. They are the Leyland Terrier Pepsi truck (I think the prototype is marketed in Australia as the Boxer), the Mercedes Benz School bus, the Mobile Cement Mixer, the Mobile Crane, the front-end loader and, for the military minded, the Centurion MkIII tank. The last two are called "Growlers" for they have a small fixture under the model that makes the sort of noise that adults hate and children love.

All these vehicles require some attention to their paintwork for obvious reasons; the wheels on the truck, bus and cement mixer need some treatment and a further compromise is needed with the bus. The bus is a left-hand drive model and when the dies were being prepared the manufacturer forgot to include a door. The front-end loader is fitted with a panel that forms the mudguards over the front and rear wheels. The prototypes that I have seen are not fitted with any wheel cover so it may be possible to remove them on the model. The Pepsi truck could be the basis for a number of conversions and I hope to write more about this in a future article.

Another source of vehicles, although rare these days, is the older type of Matchbox vehicle. These cars and trucks were manufactured in the halcyon days of my youth when manufacturers had not discovered "mag" wheels or model suspensions; they were sturdy and if stepped on were undamaged. These vehicles are now collector's items and many collectors would cry in despair at what I have done to one that I found. A lot of bush will separate the two main towns on my layout and where there is bush a Volunteer Bush Fire Brigade will be found. Most equipment these units use is of WWII vintage and the model I found was of an Austin Mk2 Radio Truck. A coat of Airfix "Signal Red" turned this truck

Stuart Livesey

into a fair likeness of a Bush Fire Brigade vehicle. Perhaps my model brigade is better equipped than most, it now has its own mobil communications centre.

Airfix also produce some vehicles that would be suitable, in some situations, on a H0 layout. These vehicles are made in OO scale and would be unsuitable when placed near an exact H0 model. They may be used, however, when sited away from H0 models. The vehicles that I have seen, made by Airfix, are essentially military vehicles, tanks, carriers, army trucks etc. While the armoured vehicles may have little application, the trucks can be converted to civilian use.

To conclude I must stress again that the modeller who uses these vehicles must be willing to make some compromises. Care must be also taken in placing the vehicles on the layout so that the eye cannot directly compare true H0 scale with "compromised H0". If care is taken these cheap toys can be a source of interesting and diverse vehicles.

TRADE PRACTICES ACT 1974

The above act is now in force and contains strict regulations on advertising.

It is not possible for this company to ensure that advertisements which are published in this magazine comply with the Act and the responsibility must therefore be on the person, company or advertising agency submitting the advertisement for publication.

In case of doubt, consult your lawyers.

SCR Publications.

SLOTTED SEMAPHORE For 'N' Scale

by Jim Witherell

An Australian (British patent) semaphore pivoted the blade through a slot in the column rather than on the front of it. Despite the unreliability of this sandwiching in the prototype, in N scale it permits a dimensionally correct semaphore which works flawlessly and is maintenance free. It can be operated by mechanical linkage or electric switch machine.

The mechanics are illustrated in Figure 1: the blade and eccentric are pivoted in slots in 1/16th inch square tubing. Within the tube, a 20 gauge rod lifts on the eccentric to force the blade horizontal. Reversing the eccentric, the rod and blade drop by gravity. Substituting 1/16th round tubing, 1/32nd rod, and reversing the blade to Americanize its appearance will work equally as well.

Ornamental column detail can be varied to suit your taste. As pictured, my semaphore uses commercial ladder stock, .010 styrene for flanging and facing, 30 gauge wire for bracing and ring-rail, HO marker jewels and an HO gauge handrail stanchion for the finial. Refer to Figure 2. However, there are some mandatory construction techniques to ensure operability as follows:

The blade should be made of .030 brass for proper weight, the blade outweighing the spectacle plate to drop properly;

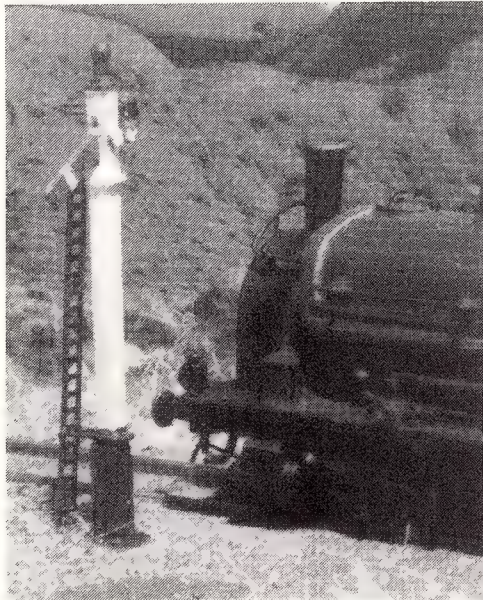
The column's upper slot must be slotted 1 mm longer on the blade side than on the spectacle plate side to permit the blade to drop. Slotting the column is best achieved with a razor saw, then widen with sandpaper a bit in excess of the blade (after painting) and eccentric widths;

The capping plug is required as a backing to fill in the slots above the blade. Accordingly, it must be bevelled on the bottom to parallel the blade at its permissive aspect. The slot can be filled with strip styrene (as in Figure 2) or putty;

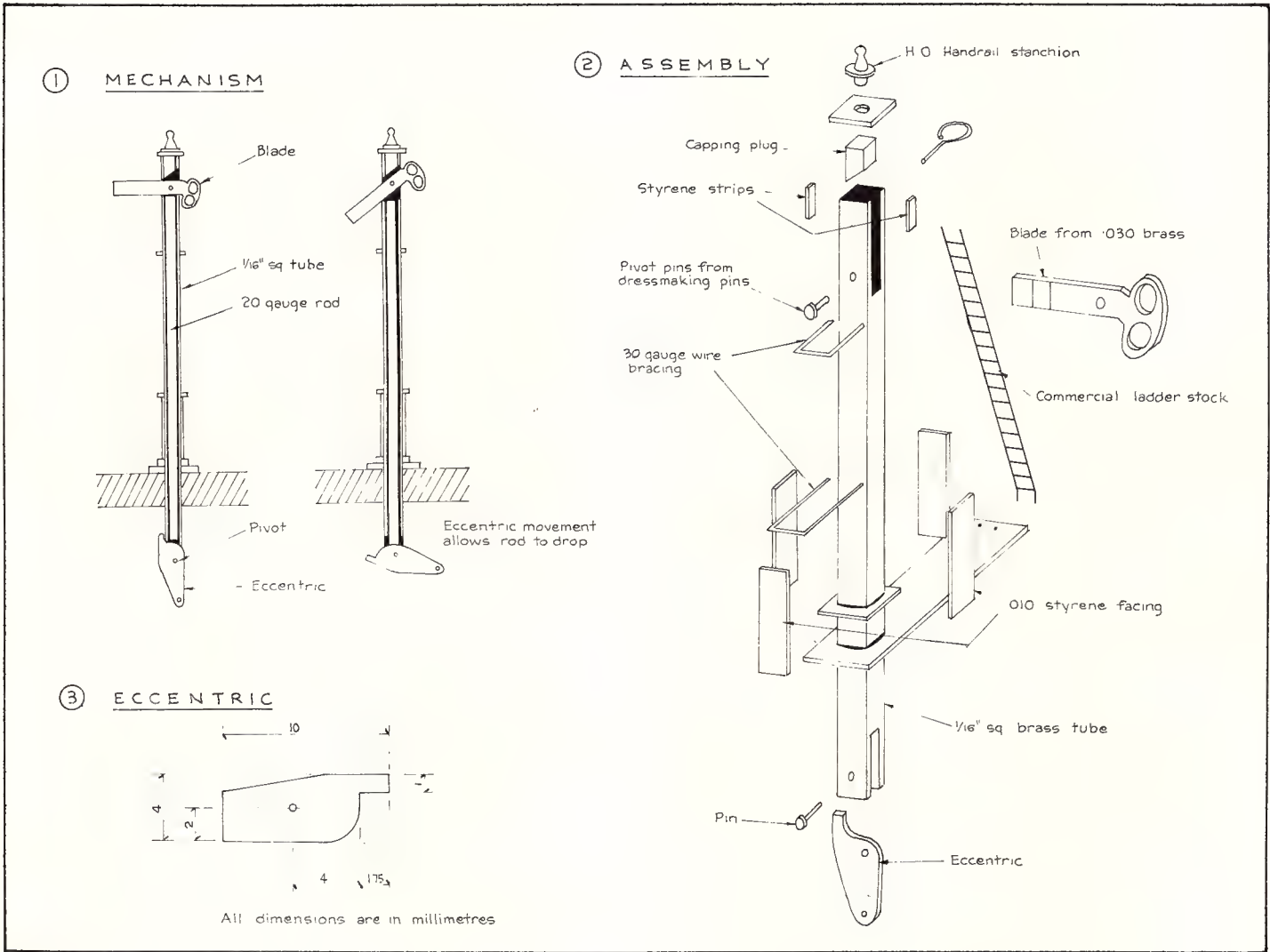
The pivot pins can be made from small dressmaking pins, the top one filed to resemble a bolt. This pin should not exceed 2 mm for the sake of appearance, and in assembly the blade and pin must be positioned in the column then the pin affixed to the exterior of the column with a rubber based cement;

The eccentric provides a 2:1 lift ratio as in Figure 3. Like the blade, it should be made of .030 brass. The catch will prevent movement of the eccentric beyond its point of maximum lift. From this point only a rotation of 30° is necessary to drop the blade although the eccentric can complete a full 90° if necessary. This will depend wholly on the type and travel of your linkage; the location of the linkage connection hold below the pivot will vary accordingly. As this may be a trial-and-error exercise after the signal is installed, the pivot pin should be removable, slightly bent for retention.

If there is a slight impropriety associated with moving a semaphore blade 5 scale inches inside its column on your railway, this anomaly will disappear the first time the blade falls to allow a train on its way. Prototype train departures are very animated occasions, a condition greatly enhanced in miniature by a working semaphore. Void of external control wires and oversized components, a slotted semaphore is well suited to this purpose.



The semaphore signal in place on the layout. Ted Still photo.



PROTOTYPE PLAN

V. R. "K" 4 Wheel Flat Wagons

On the VR, there are many classes of flat truck, and large numbers of variations within the classes. For example, the VR 'K' wagon was shown in the 1914 Rolling Stock Diagrams book as being in six basic patterns. Some of them were built as early as 1859, but it is doubtful that they were called K's then; however, the series still consists of several different kinds of 4-wheel flat wagon carrying the code K. In this article, we will deal particularly with K's. Other types are to be covered in later articles.

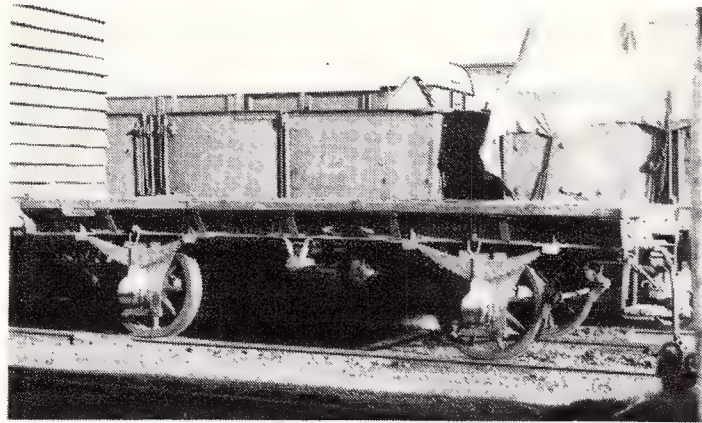
The 4-wheel flat wagon is one with perhaps the greatest variety of uses. K's are used not only to carry loads requiring flat wagons; some are also used as "match trucks" between locos having automatic (knuckle) couplers and

vehicles — such as Tait suburban cars — having screw couplers. Naturally, one end of such a 'match truck' is itself fitted with a screw coupler. Some modellers have used this idea on their layouts when they have been running wagons from 'visiting' layouts using different couplers to their own.

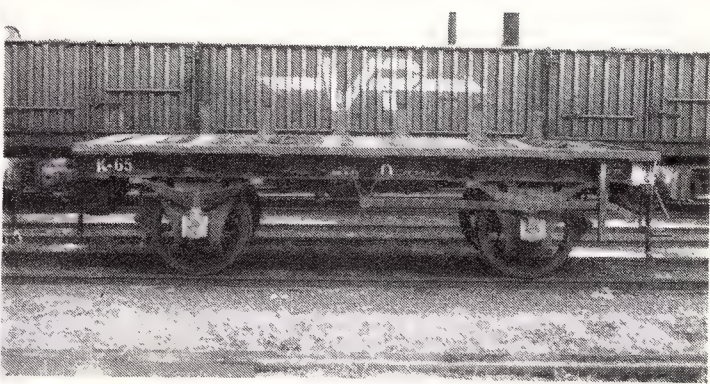
Back in the 1950's K 'match trucks' were used to match country passenger stock when being shunted and sorted around the Spencer St. — North Melbourne area. During the conversion of passenger stock from screw couplers to knuckles, many cars had a screw coupler at one end and a knuckle at the other. One country depot (Horsham) performed their 'match truck' tasks with such a passenger car, as it suited the local arrangements for train

make-up.

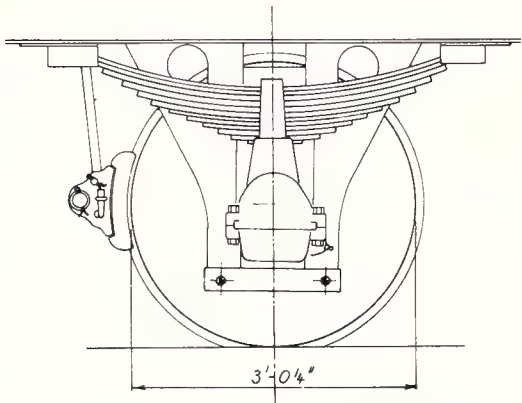
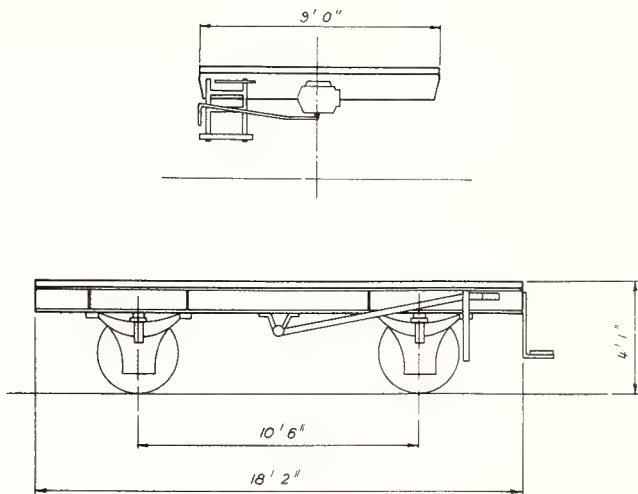
VR operating procedures specify 20-odd stations "at which flat trucks are provided". These include Ballarat, Dimboola and Sea Lake in the west, Bendigo and Benalla to the north, and Traralgon and Korumburra to the east of the State. The chief use of the wagons at these 'transfer stations' as they are called, is for the cartage of farm machinery that cannot be manoeuvred out the doorways of gondola wagons such as I's. Such bulky machinery is transferred from the gondola by a yard crane, on to the deck of a K. The arrival of an I (gondola) truck containing a large tractor would be pointless at a station without a crane to lift it out; hence such loads were transferred to K wagons at the appropriate transfer



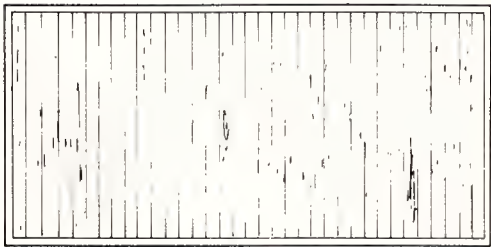
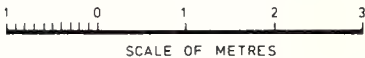
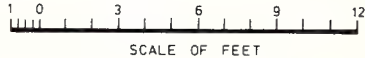
Side of K 2, showing 'strap' supports, along the side sill, for the deck overhang.



This side view of K 65 demonstrates one of the two common types of axle box on K's. Some of the planks look as though they are renewals. One, at the right-hand end, looks like it needs bolting down.



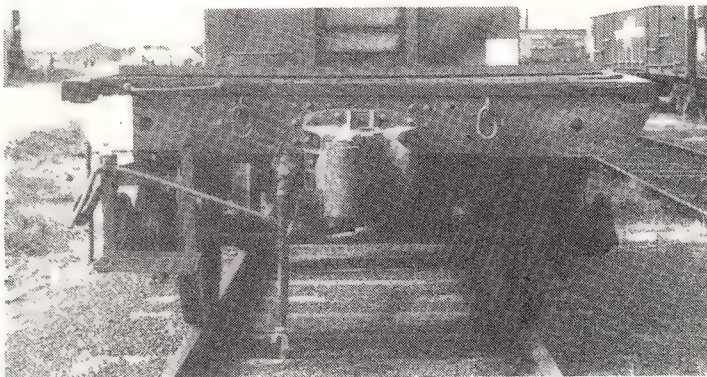
'W' GUARD AND AXLE BOX ENLARGEMENT



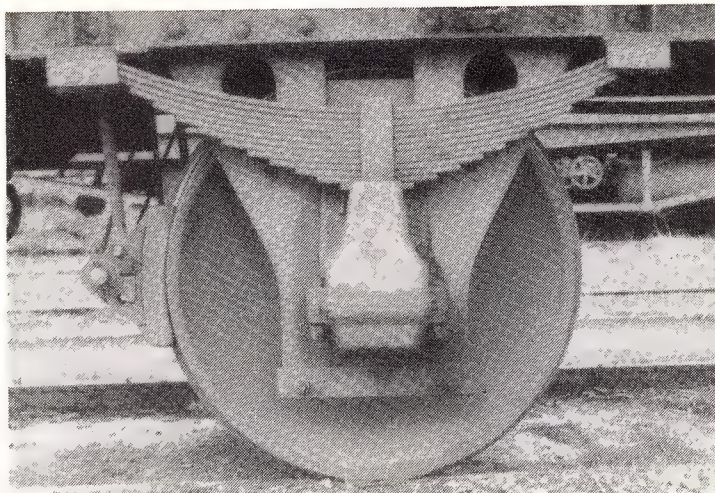
VICRAIL 'K' CLASS
GENERAL PURPOSE
FLAT TRUCK

Basic plan drawn from VR information.
Details obtained from photographs

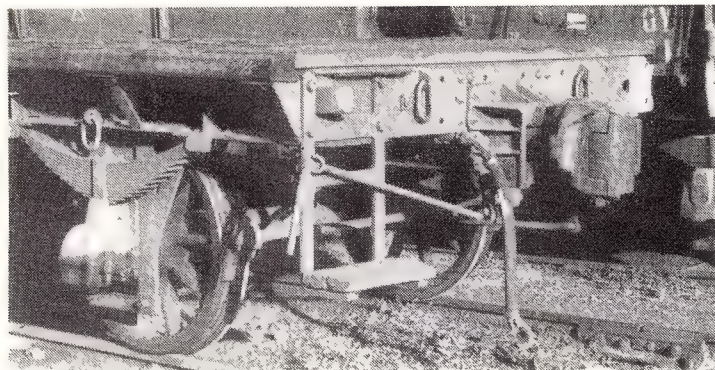
Drawn R Wigglesworth May 1977



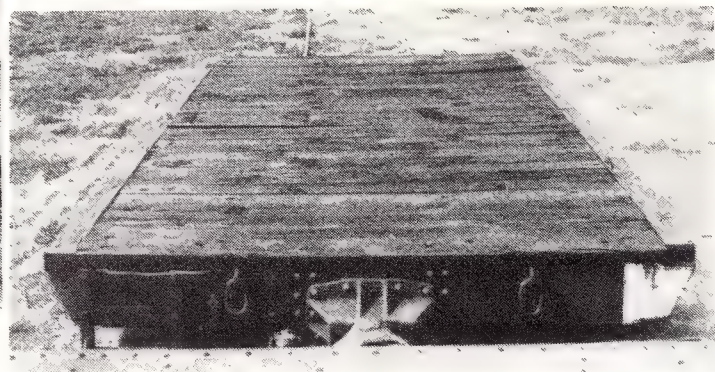
End-on view of K 65 handbrake end. The buffer holes and the holes for end-braces point to its ancestry as a gondola — perhaps an IA — Many years ago.



Close up of a K axle box. This type is common on much VR 4-wheeled stock. Photo supplied by Ron Wigglesworth.



End of K 2, snapped at North Melbourne in 1975. For a 'plain flat wagon', there is a lot of detail: note the uncoupling bar, the lashing rings on the side sill as well as the end, and the coupler pocket.



View along deck of K 6. The deck consists of timber planks bolted to the steel wagon frame.

station. Farm machinery is lashed to 'lashing rings' hung at intervals around the sills of the K. Appropriate ropes and old bagging are held at the transfer stations for lashing the load and prevention of chafing of the lashings over the edges of the wagon or the load. At some locations, though, the K's spend all their time at the far end of the least-used sidings, sometimes half off the end of the track! They have only been moved when taken every couple of years to a repair centre to have their air-brake equipment checked.

K's are also used as "safety" vehicles adjacent to wagons having overhanging loads. The VR have a rule that 'when a "safety" vehicle

is provided for overhanging consignments, the load must be secured so that no portion can touch the safety truck during the journey'. For example, 75ft timber poles on Q bogie flats must be placed on bolsters on the Q so that overhang is equally distributed over K's at each end, and with the poles not touching the decks of the K's. The only exception to this rule of 'load not to touch safety truck' is when a K is 'safety' to a crane (e.g. break-down train) vehicle.

Some K's are used as yard vehicles, for functions such as 'matching' and cartage of heavy items around workshop complexes. Two are used with the track relaying gang, and

one is fitted with a small crane for Way and Works use.

The majority of K wagons are in the series K 1 to 70. Most of them have timber decks, but some have a steel 'chequer-plate' deck. Outside this range are K 372 and 373, shown in the 1974 VR 'Rail Freight Guide' as being longer than the 10'6" wheelbase types — they are probably a 15ft wheelbase vehicle. Also, where the smaller K can carry 16.5 tonnes, the longer can carry 20.5 tonnes.

Compiled by Ian Weickhardt and Peter Vincent
Photos by Peter Vincent, unless otherwise stated.

OPERATIONAL IDEAS

Bob Gallagher's article on layout design and prototype operation has, I hope, encouraged many of you to study the prototype more closely for operating ideas. For interesting ideas you don't have to travel very far; the next suburb or town could be a goldmine of ideas. I live in Lithgow and, while many may think of it as the end of the world, I have found it rich in interesting operation.

Lithgow is the centre of the western coalfields as well as being the change-over point for motive power. This combination means that interesting operation is the norm rather than the exception.

Shunting the Hermitage Washery branch is one of the more interesting operations that could be incorporated in a model railway. The coal that goes through the Washery comes from two mines; the Hermitage Colliery which is situated on the same sight as the Washery, and the Lithgow Valley Colliery. The LVC is located across the town from the Washery and the coal is brought over in heavy trucks. Once the coal is washed it is loaded into waiting BCH, FCH, HCH and CH hoppers by tipple or front-end loader.

The empty hoppers, usually minus a

brake van, are first marshalled in a bottom yard siding on the down side of the main line. A 44, 45, 47, 48 or 49 class diesel then couples on, usually, at the up end. When the all clear is given the hoppers are propelled out of the siding onto the down main line. The hoppers are pushed through the old and new station until the locomotive has cleared one of the trailing crossovers at the down end of the new station. Once clear, the locomotive then pulls the train through the crossover and onto the up main line.

When the last hopper has cleared the crossover the train sets back and the hoppers are slowly propelled onto the Washery branch (trailing for up trains). The train is flagged across two busy streets and finally pushed into the Washery, a distance of .25 kilometres. The average train is made up of 25 hoppers and so once at the washery the train is divided and placed on two adjacent sidings.

If the train has been divided at the Washery, for the return journey, the first section is pulled out of the branch and onto the up main line. It is then pushed down the up main (confusing isn't it) until it is clear of the Washery turnout. The locomotive then goes back to the Washery and picks up the

second section. Back on the main line both sections are joined, the shunters climb on and the train is pulled through the new and old station, past the bottom yard and into the top yard to await forwarding to Sydney.

In the paragraph where I described the make-up of the train I used the word "Usually" several times. I have watched this operation quite a few times and the train is, usually, as I have described it. However, on occasions a brake van has been used, sometimes next to the engine, sometimes at the other end. At times the van is left on the up main line while the train is at the Washery and at other times it goes down the siding with the train. On other occasions the engine has operated from the opposite end to that which I described and has pulled the empty hoppers down the branch. I think it depends on the moon. A retired guard that I asked was just as puzzled as I was.

If you do incorporate this interesting operation on your railway you can prototypically be free in how you shunt the branch and take the easy way out if you are short a brake van or stuck with the engine at the "wrong" end of the train.

Stuart Livesey

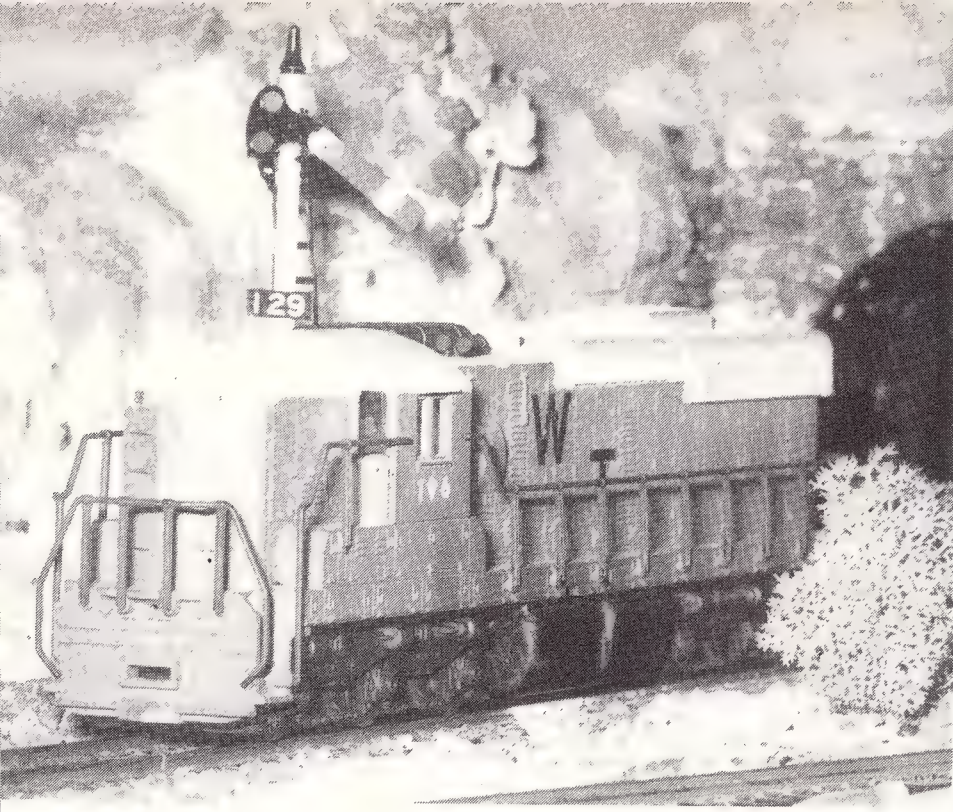


Figure 1. Freshly painted engine 196 has just emerged from the Atlas works and is about to commence its trial run. If all proves successful, the couplers will be fitted ready for revenue service. Photo by Murray Billett on Bruce Ide's layout.

32		Short Ore	
C and O	15		
S P	45 46 47 48		
WT	60 61		
B and O	80		

Wagon No. 3245

Load ORE

Wagon Type Short Ore

Tare

Length 30 ft.

EMPTY CAR

Figure 4.

UNIQUE NUMBERING

by Wayne Lang

After freeloading on other authors for the past few years by reading AMRM and other imported magazines I decided to submit an article myself to help replenish the dwindling stock at AMRM. THIS article will not benefit every reader, in fact it may only be of interest to free-lancers like myself. In any case if only a few readers gain from it or it provokes some others to take up quill and ink to criticise, then we have at least achieved the communication between modellers that magazines like this provide for.

The aim of this article is to show ONE way (there are others) of dealing with the following steps:

1. Removal of existing numbers of rolling stock.
2. Allocation of new members.
3. Application of new numbers.

Step 1

I found this to be easier than first anticipated. All you will need is some methylated spirits and some cotton buds (the type used for cleaning infants ears and noses). Dip the end of a bud in the metho and lightly rub across the number on the wagon. Try to stay within the confines of the number as damage to other markings may result. When the number has dissolved and broken away, clean up with the dry end of the bud. After doing all wagons, go over them with a damp cloth to remove the stains left by the metho. This method works on Athearn and Roundhouse. I haven't tried it on any other pieces at this stage.

Step 2

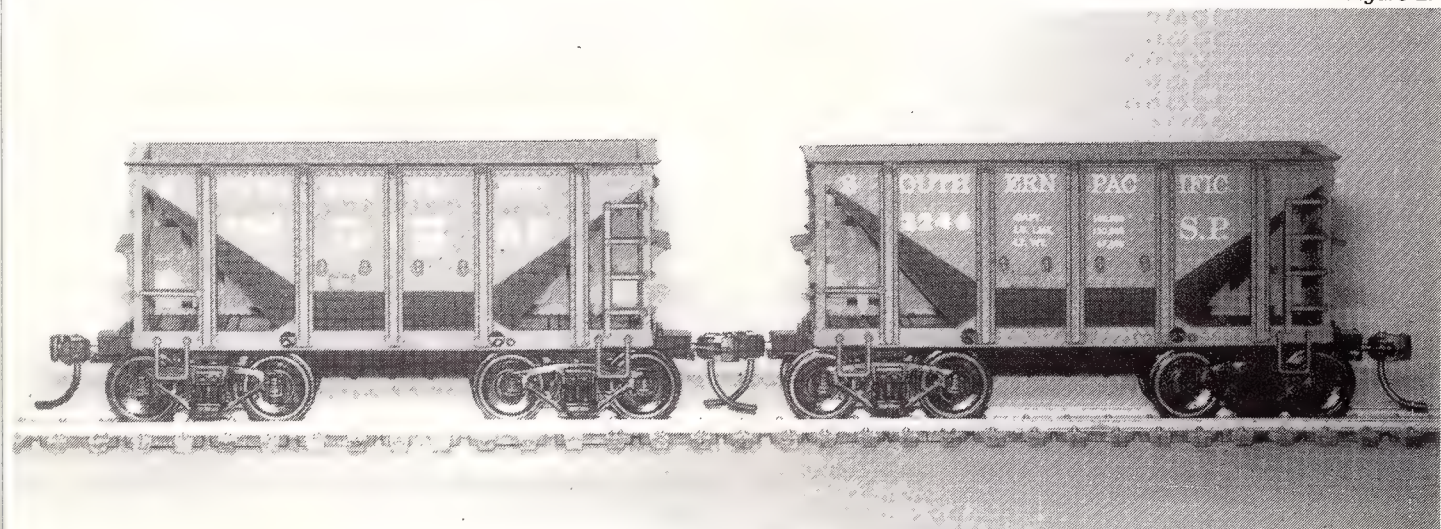
There are many different types of numbering systems in use by prototype railways, varying from one or two up to seven or more numerals. Some railways even mix alphabetic characters with the numerals to further identify them by type. I had already purchased some sheets of "Letraset" so I decided that the less numbers to apply to each wagon the better, for the following reasons:

1. Reduced cost per wagon.
2. Reduced time per wagon.
3. Less chance of making mistakes.

My decision therefore was four numerals. At this point I also decided to use the numbers of the wagon to describe its type. The first two numerals represent the type of wagon (01=99) and the second two numerals indicate the unique number of that wagon within its type

Continued on page 20

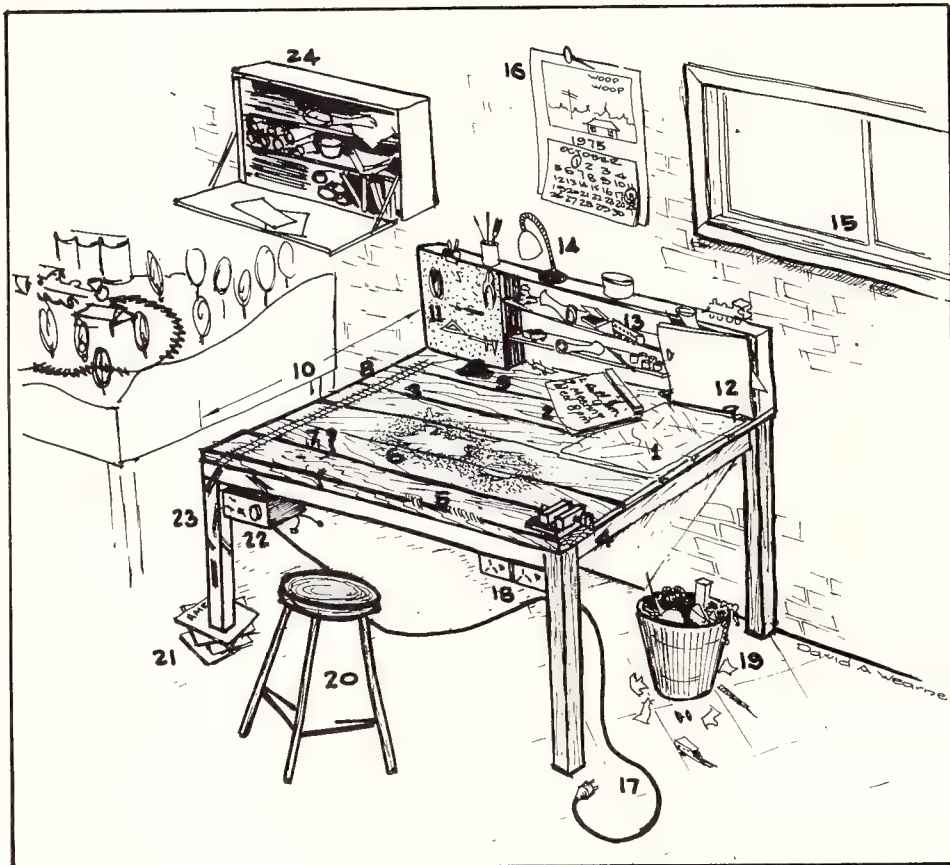
Figure 2.



Peter Kelly

As can be seen from the sketch it has 24 desirable features which, when used as required, are a great help to turning out championship models.

1. A scratched plastic sheet which covers the plans being used to protect them from paint and glue while, at the same time, the scratches look like lines on the plans.
2. The note pad with two messages on it — "call Jim" and "meeting Wed. 8pm". Which Jim? What about? If he wants something he can call me. What meeting? Most probably was dull, so I'm glad I missed it. (Couldn't have been here; no visitors last night).
3. The crack is excellent for holding loose nuts, springs and pin drills. The great advantage of this is that pieces don't land on the floor and it only takes 10 minutes to clean out and find that the lost part is not in there.
4. The mini vice serves three purposes:
(a) putting pretty patterns on plastic kits being held in it,
(b) catching sleeves,
(c) nut cracker at Christmas.
5. These were made by my son trying out a file on a small wagon. They are now used as a reference for length of stripwood so as only to have one area for collection of sawdust for scenic use.
6. The sprayed outlines prove that I once used a new-fangled spray tin and not the 50mm paint brush with which I obtain the smooth finish friends comment on.
7. The blood stains show me where to test my next craft knife so as not to have an untidy bench.
8. The test track is unpowered but is a magnificent launching pad for modern day "Rocket".
9. Blob of glue (or is this where I experimented using a plastic wagon as a soldering iron stand?)
10. The table length is 50mm too long so as to stop me reaching the tools on the shelves while sitting down. When I stand up to reach them I can test the hardness of the vice with my elbow.
11. The pegboard front is used to hold missing or unwanted tools. They are the only type of tools I seem to own these days, since every tool I need is never on



12. The tool cupboard is full of paint tins, ripped plans, plastic kits in packets and some unwanted tools under all.
13. The shelves slope and are fantastic for testing the rolling properties of half-finished wagons and other pieces that can roll.
14. One day, or night, I will make the flexible part of the lamp flex again instead of only shining on the back part of the desk.
15. In summer, the window lets the sunlight into my eyes and the insects to dance on the paint (wet or half-wet, but not dry). In winter, the window lets in the sunlight and cold winds.
16. I must replace that 1974 calendar with the ARHS 1979 one.
17. One day I will shorten the cord I trip over (or will I move the desk?).
18. Why did I mount those 240 volt sockets upside down?

20. The stool used to have four legs but I find it easier to get off now.
21. By using AMRM's to fix up the short leg ensure I have some on hand to read while the paint is drying (look at this article. It says "Have you renewed yet?")
22. 12 volt power pack is placed for grabbing when getting off stool.
23. The paint samples are for matching up later. (Or did I just clean the brush here a couple of times?)
24. The plan cupboard has every plan, including ones you wonder why they are there, but not the one Jim wants (he rang).

So now you know where prize-winning models are produced, and with a workbench like this you can improve the vocabulary of modelling terms as you make your models.

Continued from page 19

name a group of ten numbers within each type, e.g. wagon number 3245 is a short ore car belonging to S.P. The 32 is the type for all short ore cars and all S.P. cars are allocated within the 40-49 sequence number. They can therefore range between 3240 to 3249 (see figure 3). It is important to note that 40-49 does not belong to S.P. for all other types of wagons. Maintenance of Way wagons are given type number 98 and all cabooses, brake vans, guards vans are given type number 99. Having a library of rolling stock ensures that you don't number two or more wagons the same, an important consideration in a good operating system. Note in figure 3 that wagon 3245 is the original number on the wagon when purchased; wagon 3246 has been done using the method described here.

To apply the numbers you only need a sheet of "Letraset" and a blunt pencil (or similar object) to burnish the actual numbers onto the wagons. I found it easier to work with the numbers if they were cut off the sheet in strips. The required number is then placed in position and burnished with a pencil. When the numbers are on they should be sprayed with a

protecting cover to help seal them. Letraset markets a product to do this. The sheet I used was number 253. It consists of three different sizes of numerals, all of which can be used on OO-HO scale. One sheet of black and one of white would do hundreds of wagons.

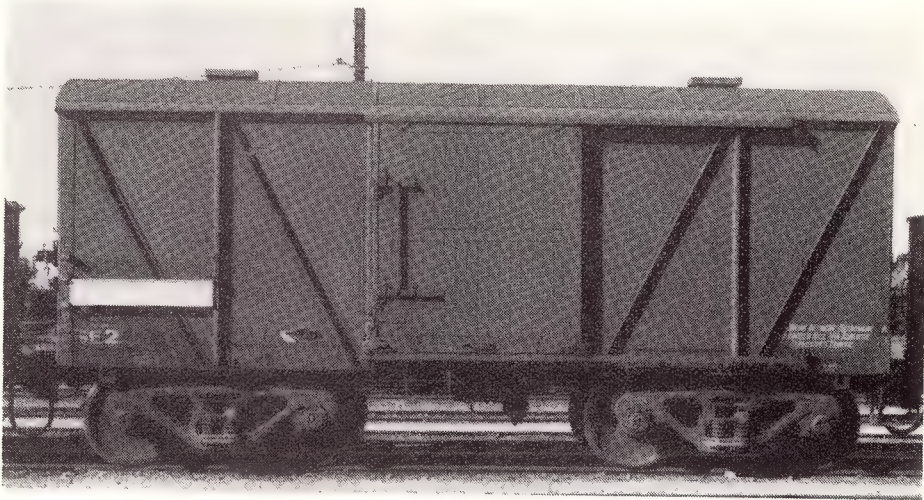
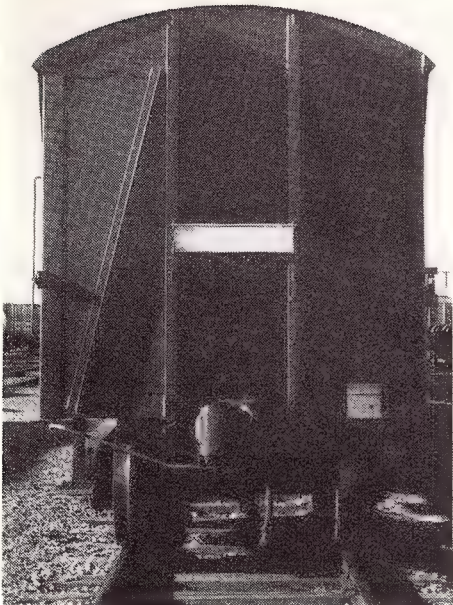
My next step is to fill out a card for each wagon so that it can be placed into operation (see figure 4). However this is another story and the vendor of the cards, Phil Curnow, has indicated that he is going to prepare an article using these cards. (Jan/Feb, 1977 AMRM. Ed.)

Small bronze springs from old tyre valve cores are useful as in spring buffers and drawhooks, 4mm scale, and return springs for points and signals.

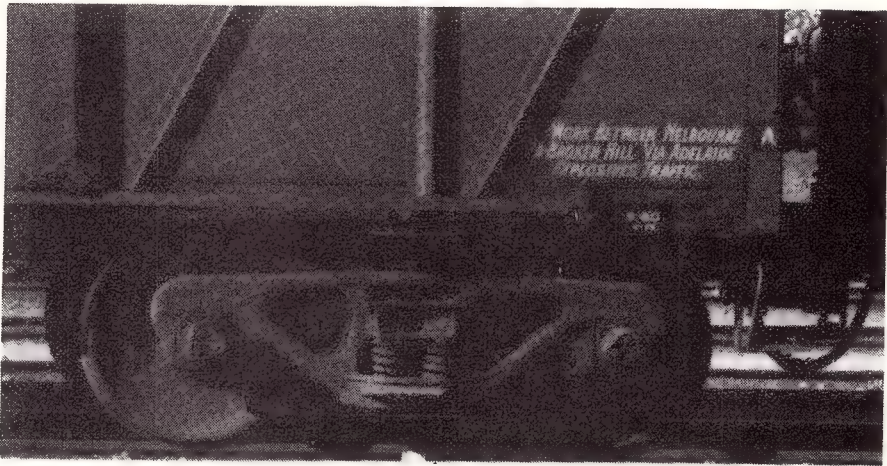
Rod Paxton.

MODELLING PROJECT

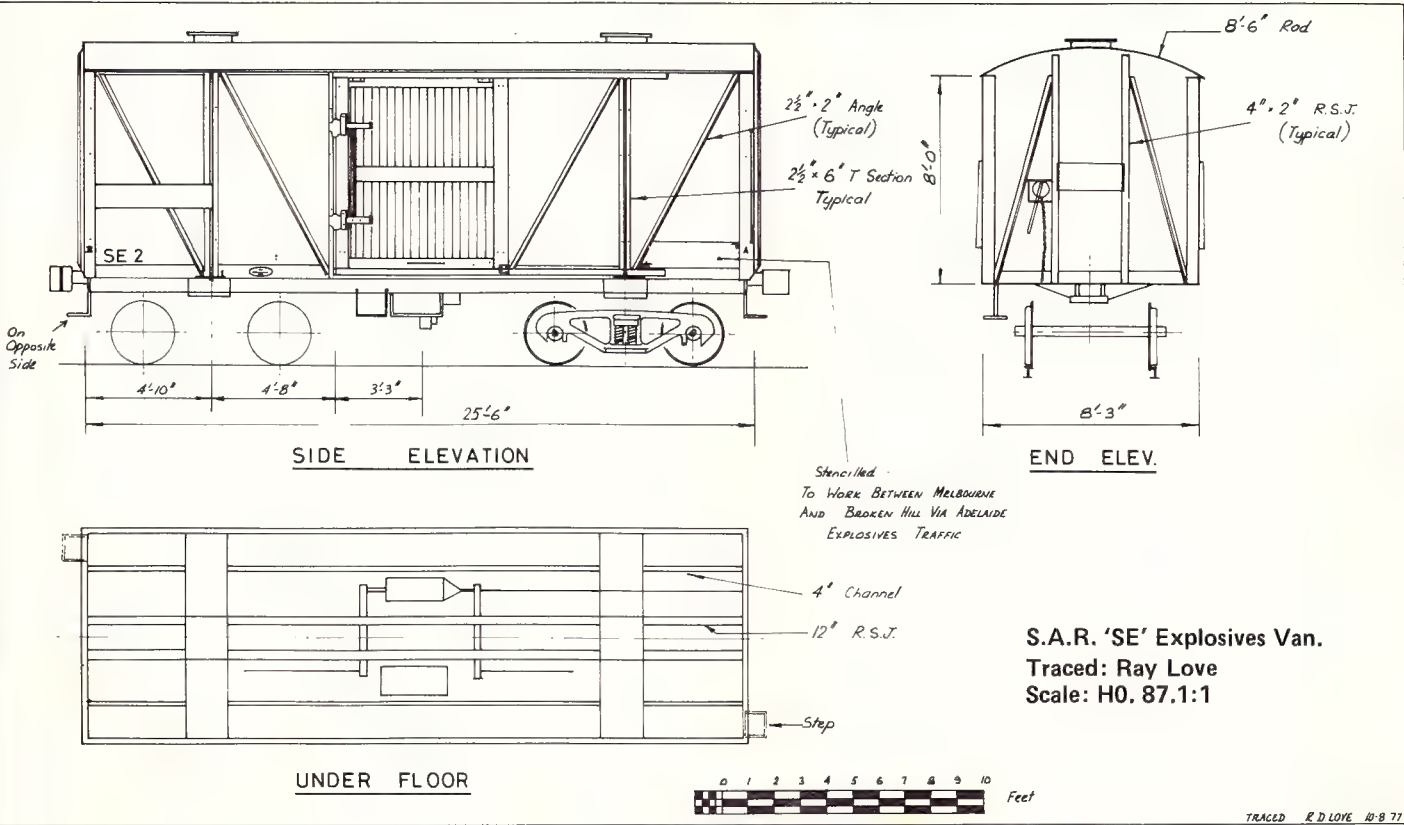
SAR 'SE' EXPLOSIVE VAN

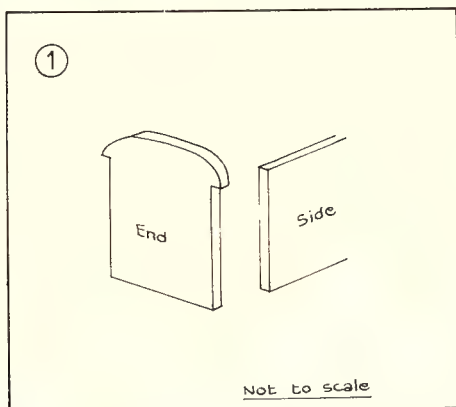


SE2 at Tailem Bend in August 1976. Phil Curnow photo.



The Prototype
The three vehicles in this class, SE 1, 2 and 3 were built at Islington Workshops in 1965. Although issued onto the narrow gauge they were designed with bogie exchange in mind and were based on the same chassis as the OMN class ore waggon. They were the first revenue waggons built for the standard gauge project; however rail carrying flat waggons and other service stock were built earlier. The change-over in 1970 from narrow gauge to standard gauge from Peterborough to Broken Hill did not effect them greatly as they continued to work between Melbourne and Broken Hill with occasional visits elsewhere.
They have always had a reddish-brown body and were issued with a white painted roof but these have darkened with grime and





soot. As with other explosive waggons there are strict operating rules to be followed when they are loaded. They are not to run next to inflammable loads and if two are in a train they must be separated by at least three non inflammable waggons.

Steam did not cease on the narrow gauge until the standard gauge changeover in 1970 so they could work in the consist hauled by a Garratt or a T class 4-8-0. Broad gauge steam had almost finished by 1965 so that it is improbable that they worked behind SAR's large steam power. Modeller's licence will solve these problems no doubt.

The Model

It is suggested that the model be made from sheet styrene, a medium which is rapidly

gaining popularity with many modellers. The following materials are required:-
 .030" Styrene for sides and ends.
 .010" Styrene for roof.
 .060" Styrene for floor.
 .005" Styrene for door catches and gussets.
 Odd scraps of above for small details e.g. vents, letter boards etc.

1 piece Scribed Northeastern Wood for the doors.

Lead as required for weight.

1 Brake Cylinder.

3" Angle 32' long.

T section 64' (Hat Section).

2½" x 2" Angle Iron 108' long.

2" x 4" Channel Iron 56' long.

2" x 4" R.S.J. 36' long.

Centre Sill 15' long.

2 x Bolsters.

Bogies (roller bearing style).

Construction Details

Cut the floor 24'9" x 7'6" from the 060" sheet of Styrene. To the underside of the floor attach the two bolsters (previously trimmed to 7'6" long) with their centres 14'10" apart. A section of the centre sill 14ft. long should then be glued between the bolsters. Using the .030" styrene cut the two side walls 25'3" x 8', and four end pieces as shown in diagram 2. The two extra ends are used as spacers to stiffen the body and, as with the normal ends, fit between the side walls. The two spacers may need to be trimmed slightly at the bottom to sit on the car floor. Assemble the sides, ends and spacers with MEK or similar ensuring that the car sides are flush with the bottoms of the bolsters. A small square of sheet lead may be cut and

dropped into each of the three compartments to give the car correct weight for reliable operation. A total weight of approx. 3oz. is recommended.

The roof should now be cut 25'9" x 9'3" from the .010" styrene. Fix one side of the roof to the top of a side wall with MEK and allow to set. When thoroughly dry, fix the other side and both ends with MEK. It is NOT necessary to fix the roof to the two formers as the capillary action of MEK does this for you. The basic body is now complete and the remaining work now is to fit the external details as shown on the plan. The doors are cut from scribed wood and fitted with a .010" styrene frame which is set into grooves cut into the scribing. Latches and bar, gussets, wheel brackets are cut from .005" styrene.

The current colour scheme is all over Tuscan Red with lettering as shown in the accompanying photograph. If weathering should be applied it would be appropriate to include an amount of lighter coloured dust in keeping with semi-desert areas through which the prototype travels.

Acknowledgements

The project was organized by Bob Burford and Peter Ziegler, the prototype notes and photographs by Phil Curnow and the plan was drawn by Len Redway and Ray Iove. Reprinted, with permission, from the January 1977 issue of "Buffer Stop" by kind permission of the South Australian Railway Modellers Association.

The people of the Sunshine District celebrated the Centenary of their town with a procession down the main street of "Sunshine", the town on the Railway Modellers Club of Queensland layout.

The procession was lead by four trumpeters from the band, followed by "Princess Sunshine" and her escort of mounted and foot soldiers (who defended her from outlaws); next the District Band; then the local P & C (Parents & Citizens Committee from the local school); members pulling a cart, followed by the Progress Association float of an old steam engine mockup on a horse drawn wagon.

The last float in the procession was a flat wagon on which the local Historical Society in period costume were doing their thing.

As you have guessed the procession was in HO/00 and the procession was made from various Airfix Kits and a few bits and pieces from the junk box.

The bits and pieces needed are:-

- Guards Band
- Robin Hood
- Wagon Train
- Cowboys
- Sheriff of Nottingham
- Confederate Soldiers
- Kodak Slide Box cover (yellow)
- 4 bases from Telegraph Poles
- Old steam engine plastic kit
- 4 pieces of 2mm plastic 75mm wide x 250mm long for bases (painted black)
- Various tins of paint
- One tube of glue

The two photos show the overall view of the procession and a closeup from ground level, so the following notes will explain how the procession was put together.

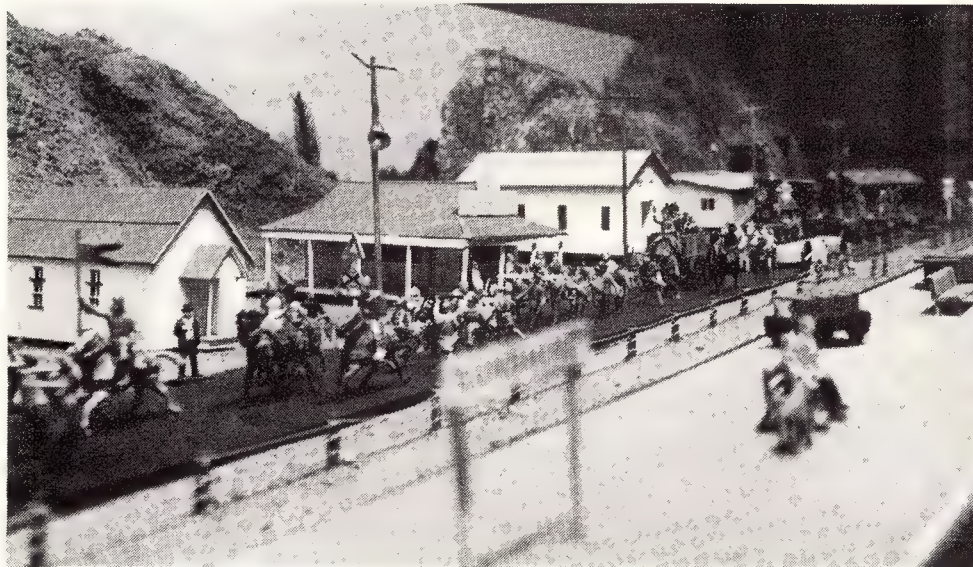
1. The Band

The band had their busby's cut off at a 45° angle approx. 1 to 2mm above their foreheads.

This was painted flat black and gives the effect of berets. Their trousers were painted green and the red coats unpainted. Black shoes and silver instruments completed their effect.

(This is quicker than a flat cut and a peak out front with all grey to make a Salvation Army band).

Four trumpeters lead the procession and the Band Master, 4 Trumpeters, 3 Trombones, 2 Saxophones and 4 Drummers made up the full band.



2. "Princess Sunshine" and Escort.

"Princess Sunshine" and the group of mounted and foot soldiers are from the "Sheriff of Nottingham" and the outlaws are from "Robin Hood".

The mounted soldiers are painted silver with green and brown shields and helmets. The flag bearer is light brown with the flag green and dark brown.

The foot soldiers are painted green, brown and black and the outlaws red, green and orange.

3. P & C Wagon.

This is the wagon from "Wagon Train" and is painted light grey with dark green lining. Instead of horses, 4 "Robin Hood" figures are fitted and another is pushing.

The driver is a Confederate soldier with the air raised (whipping or saluting?). The passengers are the Confederate Officer and Friar Tuck.

4. Progress Association.

This float is a Kodak slide lid cut down to

10mm high and the Telegraph pole bases become the wheels. The plastic locomotive is painted green, red and brown with silver wheels and is glued on to the float.

This float is pulled by 4 cream horses — out of the "Confederate" Kit and driven by 2 Confederate soldiers who sit on the float edge.

5. Historical Society.

This float is 200mm long x 50mm wide and is made by mating a piece of plastic and the wheels from the "Confederate" guns.

Two horses from "Wagon Train" pull this wagon float. Distributed on in various positions are Cowboys and wagon train figures painted various colours and mounted cowboys accompany the float.

The whole procession is mounted in groups on the 250mm long plastic for ease of handling and to allow sections to be shown easily to the public who expressed interest in this effort.

Peter Kelly;

TESTING — TESTING — TESTING — 2,3,4

"A beginner's law" by R. McLennan.

The decision to become involved in the art of model railroading cannot be taken lightly. Unlike most other hobbies, modelling a railway system involves a number of inter-related decisions which if made incorrectly will place the beginner on a road from which there may be no return without considerable expense. Whether we like it or not, railroading is expensive; it is for this reason that I overcame the urge to race off and buy a locomotive and some rolling stock so that I could call myself a Railroad Operator/Manager.

The experienced enthusiast will undoubtedly comment that beginners may learn from the long history of the hobby — can we actually learn from the mistakes of others? To a point we can, the sundry magazines and books available make it possible to research the subject, but it is most difficult to determine which are mistakes and which are not; few writers will admit that aspect and into the bargain, most experienced enthusiasts talk a language that we beginners may find difficult to understand or even follow. For the rank beginner then, the only choice is to carry out some testing with the aim of 'finding out' the hard way before having committed oneself to an actual layout and its associated expense. To some extent that involves curbing the enthusiasm in the short term, for safer long term results.

The first, and one of the most major, decisions a beginner is faced with is the answer to 'what scale?' I thought about the various scales, talked to a number of HO/OO scalers and even spent time in the local retailers just listening to customer comments. I was amazed at the number of 'sly digs' about gauges and resolved never to join any club, if that was the common attitude. I chose, with an open mind, to begin a test phase in N gauge for two reasons: the sly digs at the gauge and limited space in my garage. This by no means was a firm decision, for a friend of mine has a range of equipment from HO2½ through to HO, but nowhere to run it. The test phase would also involve a 9ft module in HO as a means of gaining experience in operation techniques. The intermixing of the two basic scales in the test phase would give me valuable beginner experience and, I hope, an unbiased look at both. I set myself a budget of \$100 and 12 months to sort out the final, binding decision.

The test phase was divided as follows:

1. Loco control — throttle.
2. Shunting techniques with emphasis on uncoupling and re-coupling.
3. Point and route control.
4. Mainline signals, automatic/manual?

The results of phase 1 have already been published under 'Throttle Control Modified'. In this article then, I wish to discuss phase 2 in some detail, for it was this phase, more than anything else, which turned me to N gauge. This was despite stories to the effect that N gauge enthusiasts after seeing the best layout in Adelaide had 'flogged' the lot and converted to HO.

The HO test module grew in topsy fashion from a simple straight to calibrate locos on, to three storage sidings and a run-round to gain operational experience. The first thing which struck me when using a range of rolling stock was the almost non standardised system of coupling and after looking at the problems involved, I concluded that N gauge really had something going for it, provided brands could be inter-mixed: for you see, at this point in time, I am not interested in scratch building or fiddling with major, or even minor modifications to achieve the same end — Operation and Running. In other words, I am not prepared to change every piece of rolling stock to Kadee couplers, particularly so, in N gauge. I therefore decided to stay with the standard Rapido type coupling.

Having made this decision, I attempted to research the business of Rapido operation in practice but, alas, I was unable to locate any specific articles on the subject. I thus went looking for electrically operated coupling ramps and was amazed that no retail outlet in Adelaide had any on show; they could talk about them, often in derogatory fashion, but could not actually demonstrate them. The warning was put forward that they are useless, cause derailments and often lift the whole rolling stock unit from the track.

When it came to the purchase of a unit to test these criticisms I found also to my amazement, that only one brand was readily available 'off the shelf' — Minitrix, and that I was told, was the worst unit of all; quite a beginning to N gauge modelling! Even the literature with the unit was not very explanatory and so, for other beginners in the same boat, with experimentation the uncoupler was made to work thus.

Each Rapido coupling has a pin which projects downwards; it is offset from the centreline of the track and so the ramp is offset as shown in Figure 1. The ramp tongue is shaped as shown in Figure 2 and rises upwards from a suitable pocket when power is connected to the single action solenoid. No power and the tongue drops out of the way at about rail level — or at least that's how it should be.

On initial test the tongue did not completely

drop back, and so the unit was stripped to find that the return spring was ineffective; a new spring, ex-Pittman brush gear, was installed inside the solenoid core rather than on the plunger and, since that time, no further retraction problems have occurred. Derailment problems cured, it seems.

The action of uncoupling is achieved by lifting one coupler *above* the other; the upward travel of the coupling is therefore critical. The gap between the bottom of the pin and the top of the retracted tongue in the end controls (for a fixed travel of the tongue) this uplift. Figure 3A demonstrates this critical aspect, whilst Figure 3B shows the uncoupling position, prior to rolling stock movement.

If the distance D in Figure 3A is large the couplings will not uncouple. If the couplings are not at the same level to start with uncoupling may not occur either. If you find that a coupling can be uncoupled from one direction and not the other, then the likely fault is mis-matched coupling heights. In addition, the lifted couplings must not interfere with the chassis or the whole unit will be lifted from the track. This, in my opinion, is *not the fault of the uncoupler*; it is a bad design and/or production on the part of the manufacturer. Lastly, couplings which have longitudinal 'slop' are the best in operation, since some clearance is required to allow rotation of the lifting coupler.

As a result of this testing phase, when I go to buy rolling stock (or for that matter additional locos) my own test unit will go with me so that I can check first. To be sorry later may be too late. Perhaps the retailers are aware of these problems and perhaps this is the real reason for the lack of test units in the shop? My list of banned units is now growing: be selective or by sorry, don't buy by looks alone, and the most expensive is not always operationally best.

Now to operation: the very nature of the offset pin and ramp provides two ways of using the device. These can be described as:

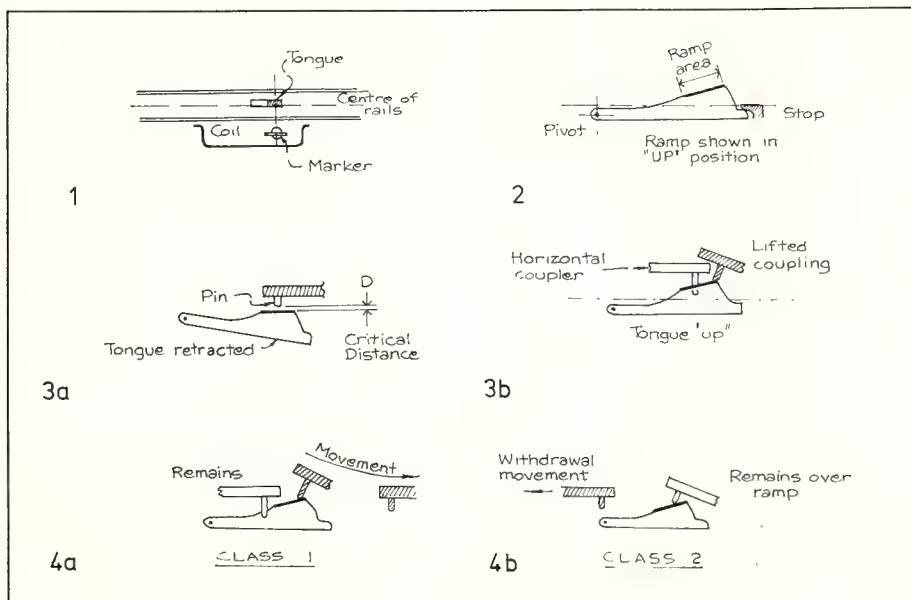
- (a) Class 1 — 'on the move' uncoupling.
- (b) Class 2 — 'stationary' uncoupling.

I have in 'Throttle Control Modified' made mention of good slow speed control as a prerequisite for good and reliable uncoupling. It is the direction of this movement which provides the two classes mentioned. The shape of the Minitrix ramp permits class 1 uncoupling when the direction of movement over the ramp is such that the loco side coupling is lifted. The system works well at creep speeds and is depicted in Figure 4A. The ramp is operated as the last axle clears the tongue area. Note, however, that the uncoupled rolling stock remains behind the tongue.

The second class of uncoupling as shown in Figure 4B is achieved by locating the correct pin over the ramp, reversing the loco to remove tension and operating the ramp. The loco side unit remains horizontal and can be withdrawn leaving the rolling stock over the ramp. This class provides the best recoupling since all that is required is to back up the loco, operate the ramp, back the loco and drop the ramp for complete recoupling. This can be achieved without even moving the stock being recoupled. On the other hand, class 1 recoupling is often impossible at slow speeds without the aid of a 'stop' to prevent the stock from being pushed backwards. Another ramp suitably positioned so that when operated 'jams' an axle is one way of providing a 'hands off' stop.

Thus it can be said then, that class 2 should be used where recoupling is required and class 1 lends itself most effectively to a situation such as a blind terminal where the loco only is uncoupled and not actually recoupled at the same end. As an illustration, a passenger train can be inched to a stop such that loco uncoupling occurs in the one action. — Yes, I know that's not prototypical; really gentlemen, can you tell me what is prototypical about fixed position uncoupling

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RAILWAY SIGNALLING TERMINOLOGY

An interlude before Arthur Perry's series on Signalling for Railway Modellers.

Semaphore	A signal using an arm moving through two or three positions vertically. The arm horizontal indicates "stop" or most restrictive aspect.	Accepting Signal	A stop signal used to accept a train into an interlocking from an auto' signalled or block-working section.
Lower Quadrant	A semaphore which has its arm lowered to 45-60° below horizontal for the proceed aspect ("clear").	Starting Signal	The signal which permits a train to depart an interlocking.
Upper Quadrant	A semaphore which has its arm raised 45° above horizontal for "caution" and 90° (vertical) for "clear".	Shunt-ahead Signal	A distinctive signal which can permit a driver to pass the starting signal at "stop," which it is mounted below and on the same post, for only a limited distance when shunting.
Colourlight	A signal showing one or more coloured lights for aspects at all times, having no arms and a separate lens for each light it can display.	Landmark	Distinctive branch line fixed signal used where drivers must always approach with caution. Equivalent to Distant permanently at caution.
Searchlight	A signal which projects one of up to three colours individually through a single lens in a searchlight-like beam.	Calling-on Signal	Equivalent of "Low-speed caution", permits a driver to enter a track where it may be necessary to stop short of an obstruction at any point.
Dwarf Signal	A semaphore or colourlight signal of limited height, mounted at ground-level and used for shunting and other restricted speed movements.	Close-up Signal	A subsidiary signal mounted below a power-operated main signal permitting a driver to proceed at low-speed to the next signal (which is at stop).
Disc Signal	A mechanical signal rotating on a vertical axis to display a disc or target of distinctive design for most of its aspects & lights by night. Also used as a description for dwarf signals with an arm painted onto a 385 mm dia. metal plate rotating on a horizontal axis.	Low-speed aspect	Virtually same as Close-up signal, only found on colour light & searchlight signals.
Banner Signal	Power-operated signal with small centre-pivoted arm behind a circular glass window.	Tonnage Signal	A signal that trains with more than a specified tonnage for their class of locomotive for the rising grade ahead must not pass unless it is at full clear. Sometimes called a "grade signal".
Mechanical	Operated by rodding or wires by direct physical force.	Route-indicator	A unit which by displaying the appropriate numeral or letter(s) in conjunction with a proceed signal indicates the route set.
Power-operated	An electric, electro-pneumatic (e.p.), or other motor fitted to allow remote-control or automatic operation.	Siding Signal	Used for shunting moves to or from a siding.
Interlocking	Area (e.g. yard, station, etc.) where points and signals are interlocked to prevent conflicting movements which would cause a derailment or collision. An interlocking may be "mechanical", "power" or "relay" type. Relay interlocking dispenses with mechanical locking, using electrical switching of circuits only.	Dead-end Signal	Used for movements into dead-end sidings or yards.
Track Control	Where signals are also controlled by a train's presence on the track.	Sub-shunting Signal	Flashing yellow light below a shunting signal to authorise a light-engine (only) movement of limited nature. N.B. Not to be confused flashing yellow below main colour lights used as "calling-on"
Auto' Signalling	Where signals are solely controlled by the presence of trains on the track.	Train-order Signal	Distinctive upper-quadrant semaphore used with Train-order working not to control trains but to indicate any need for driver to collect Train-orders at that train-order station.
Semi-automatic	Where a signal box can be cut-in as necessary to control auto' (automatic) signals.	Points Indicator	Ground unit which indicates the position a turnout (points) is set.
Track Circuit	An electric relay circuit including the rails of a track designed to detect the presence of a train upon that length of track (block).	Switch-stand	Of USA origin, serves as points lever at turnout it operates and by means of coloured targets of various shapes shows not only which way the turnout is set but the class of track it is set for. It may be of high or dwarf type.
Block-joint	An insulated rail-joint in a rail to keep the track-circuits of adjoining "blocks" (lengths of track) electrically separated.	Switch-indicator	Of USA origin, fitted to power-operated turnouts, virtually same as dwarf switch-stand but has no lever (handle) to manually operate points. In effect it is a variety of points-indicator.
Overlap	A track-circuited "block" immediately ahead of a signal to provide a safety margin where the next signal ahead is further away than necessary for safety. Purpose is to keep trains moving smoothly.	Stick (Board, USA)	Slang term for signal, probably inspired by arm of semaphores.
Ahead/In advance	Once a driver reaches a signal the signal ahead or in advance is the next signal that will be encountered as the train proceeds.	Absolute	An absolute signal (home or starter) may NOT be passed at "stop" unless permitted by some specially authorised person. Absolute block-working allows only one train in any one block at a time.
In rear	All signals previously passed along the line are in (the) rear.	Permissive	A permissive signal (automatic) may be passed at "stop" without permission providing specified safety regulations are observed. Permissive block-working allows for more than one train to be in any one block at a time providing specified safety regulations are observed.
Normal	Signal's "stop" aspect, turnout's (points') normal position.	Slotting	A system permitting two signal boxes to jointly control mechanically a lower quadrant signal. Both boxes must "pull-off" before the said signal can clear.
Reverse	Signal at "proceed", turnout opposite position to "normal".	Pulled-off	A signal has been pulled-off once it has been cleared to proceed. If the signal is "on" it is at "stop".
Aspect	Position of semaphore arm, or combination of arm positions or lights displayed to give a train driver an "indication", e.g. double-red (lights).		
Marker-light	A single fixed light of one colour, in some systems permanently alight, forming part of the aspects shown by a main running signal, and/or guarding against the failure of the main light in darkness.		
Distant Signal	A caution or warning signal placed at braking distance in the rear of its Home signal.		
Home Signal	A stop signal protecting the approach to an interlocking or hazard.		

TESTING — TESTING — TESTING — 2, 3, 4

Continued from page 23

anyway? I believe that comment applies to all gauges and not just to N gauge. This is particularly so in all types other than the Kadee delayed action system.

I think that the beginner should realise that the major difference between ramp uncoupling and, say, the Kadee magnetic system is that when using ramps, layout planning must include the ramp positions as they cannot be easily added later, and thus the

limited availability (in Adelaide) of 'off the shelf' uncouplers is all the more amazing.

Thus far 3 European brands of stock have been intermixed and, via another newcomer, 2 other American brands. By far the best performer to date has been Roco two-axle stock which can be intermixed easily with all Minitrix items. Fleischmann stock recouples beautifully in a class 1 situation but does not uncouple well with the Minitrix ramp as the critical distance of Figure 3A is large enough to prevent uncoupling on most occasions. This leads me to believe that using a Fleischmann ramp will cause problems with the other brands and so it appears that complete trains,

such as a coal train of F8520 stock, will end up being drawn by locos which operate well on the Minitrix or Roco ramps in a class 1 situation.

It seems to me then that the builder/manager must accept that there are problems in this area and that to operate any layout, in any scale, one must be very selective to minimise the future operational problems. There is no sound basis or reason to use uncoupling as a base from which to 'snipe' at N gaugers; the other gauges are just as prone to the same arguments!

A BEGINNER'S LAW — BE SELECTIVE OR BE SORRY.



Bb 650 shunting at Invercargill in 1966. Ian Cutter photo.

STEAM ERA — New Zealand Railways

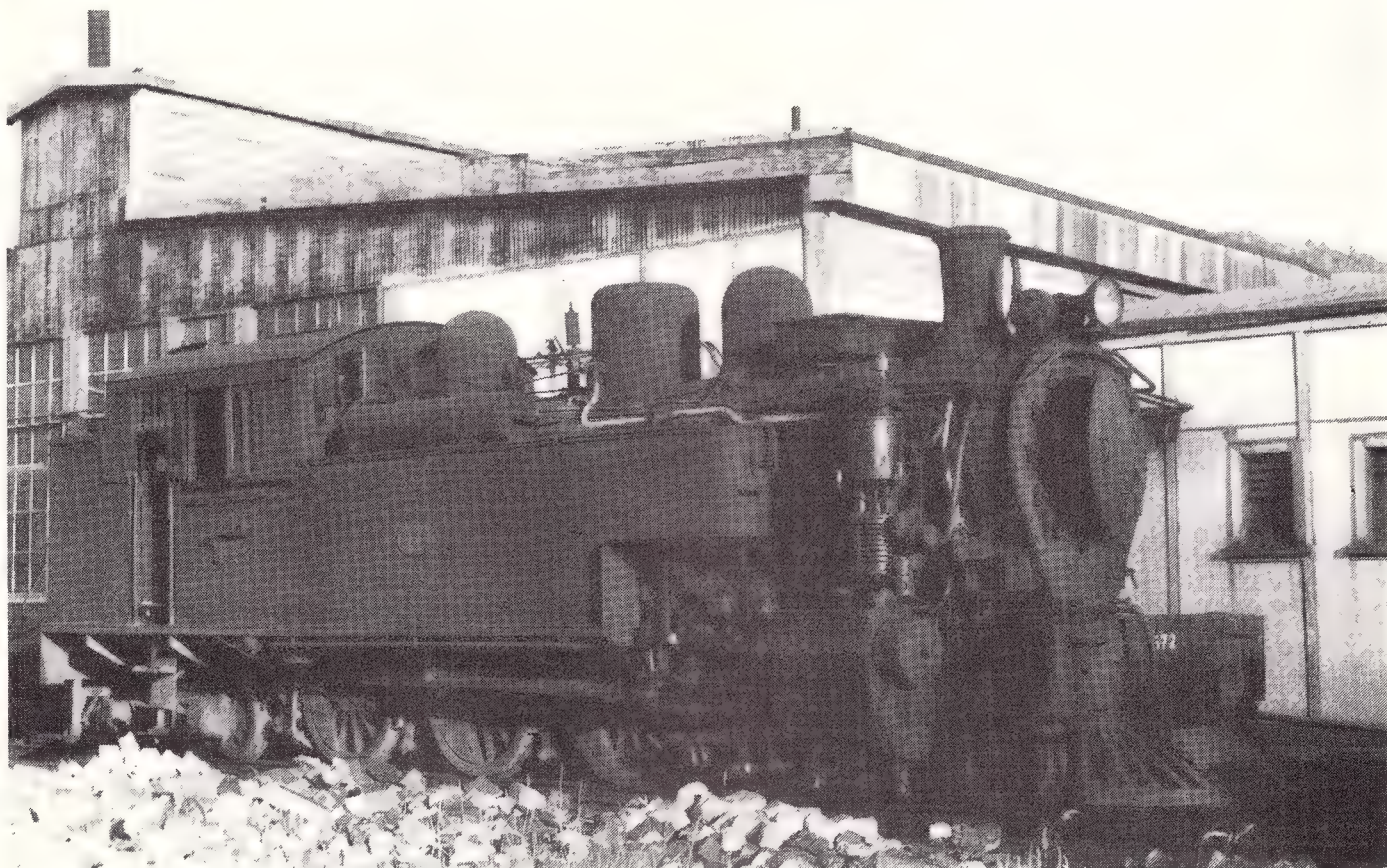
Ian Cutter crosses the Tasman for a final listing of steam locomotives.

Australian railway enthusiasts sometimes display a rather patronizing attitude to the railway system across the Tasman. This is perhaps understandable — after all we do come from the land of the AD60 and the 500B and

"Heavy Harry", and it must be difficult to take at all seriously a railway system which used to own engines with names like "Rat" and "Mouse" and "Snake", and operated express trains with tank engines.

However, it is always wise to seek an unbiased opinion, and "Railway Progress, 1909-1959" published by the Stephenson Locomotive Society would seem to be a suitable book to consult. Under the rather quaint

Ww 672 at Greymouth loco in 1966. Ian Cutter photo.





Ab 810 at Lumsden in 1966. Ian Cutter photo.

heading "The Antipodes" we find:

"Australia and New Zealand have surprisingly different styles of railways, appearing to be rambling and outdated in Australia and more compact and modern in New Zealand."

The following extracts should give an idea of the opinions expressed about the Australian systems:

"... Locomotive policy in the various states has generally been hindered by the traffic conditions due to the gauge situation and also by some apparent National inability to really understand locomotive design The two 3'6" gauge systems (we seem to have lost a couple somewhere) . . . were content with building small and uninspiring locomotives New South Wales . . . relied largely on elderly 4-6-0 and 2-8-0 for most of its traffic . . . the South Australian Railways were equipped only with the usual antiquated Australian types until the mid 1920's when a series of American designed locomotives made their appearance. In Victoria, most locomotives were really "Victorian", and until after the Second World War there were only four modern express locomotives on the whole system . . . In general, the low quality of Australian locomotive design has facilitated the introduction of diesel power for the poorer the steam power then the better the diesels show by comparison . . ."

It is to be hoped that these selected quotations have provided some food for thought.

Railway development in New Zealand began in 1863 and continued with a number of false starts on various gauges, but from 1872 the gauge was fixed at 3'6" and the railways soon came under government control. The only significant exception was the Wellington and Manawatu Railway Company which was founded in 1881 and not taken over until 1908.

An overall history of the railway system is given in "Railways of New Zealand" by D.B. Leitch (David & Charles, Newton Abbott, 1972), but the reader may find some value in perusing the review which appeared in the Winter/Spring issue of the New Zealand Railway Observer for 1972. A number of other relevant books have been published, particularly by A.H. & A.W. Reed and by the New Zealand Railway and Locomotive Society.

There are two outstanding reference books on NZR locomotives. "Cavalcade of New Zealand Locomotives" by A.N. Palmer and W.W. Stewart (Reed, Wellington, 1957) is a 144-page book which devotes a page of text and picture to each locomotive class up to the Dh, along with some brief historical notes.

Class	Type	No	Service	Class	Type	No	Service
E	0-4-4-0T	8	1872 - 1899	Q	4-f-2	13	1901 - 1957
F	0-6-0ST	88	1872 - 1964	Uc	4-6-2	10	1901 - 1959
A	0-4-0T	14	1873 - 1906	We	4-6-4T	3	1902 - 1969
C	0-4-0ST	16	1873 - 1922	Wd	2-6-4T	18	1902 - 1936
G	4-4-0ST	4	1873 - 1919	Wf	2-6-4T	41	1904 - 1969
B	0-4-4-0T	2	1874 - 1895	E	2-6-6-0T	1	1905 - 1917
D	2-4-0T	33	1874 - 1927	A	4-6-2	58	1906 - 1969
J	2-6-0	32	1874 - 1935	X	4-8-2	18	1909 - 1957
M	0-6-0T	4	1875 - 1928	Oa	2-8-0	1	1908 - 1929
H	0-4-2T	6	1878 - 1956	Ob	2-8-0	2	1908 - 1931
A	0-4-0T	3	1875 - 1900?	Oc	2-8-0	1	1908 - 1930
P	0-6-0ST	2	1876 - 1885	Na	2-6-2	2	1906 - 1929
L	2-4-0T	10	1877 - 1903	Nc	2-6-2	2	1908 - 1931
K	2-4-2	8	1878 - 1928	Bc	2-8-2	1	1908 - 1926
R	0-6-4T	18	1878 - 1936	Ud	4-6-0	2	1908 - 1929
Q	2-4-4T	2	1879 - 1898	Wh	2-6-2T	3	1908 - 1927
T	2-8-0	6	1879 - 1927	Wj	2-8-4T	1	1908 - 1927
S	0-6-4T	7	1881 - 1926	Wg	4-6-4T	20	1910 - 1955
V	2-6-2	10	1885 - 1927	Ba	4-8-0	10	1911 - 1969
N	2-6-2	10	1885 - 1934	Ww	4-6-4T	64	1913 - 1969
O	2-8-0	6	1886 - 1922	Aa	4-6-2	10	1915 - 1957
P	2-8-0	10	1887 - 1930	Bb	4-8-0	30	1915 - 1968
W	2-6-2T	2	1889 - 1959	Ab	4-6-2	149	1915 - 1969
Wa	2-6-2T	15	1892 - 1962	Wab	4-6-4T	30	1917 - 1969
Fa	0-6-0T	13	1892 - 1904	G		3	1928 - 1937
La	4-4-0T	3	1893 - 1902	C	2-6-2	24	1930 - 1968
U	4-6-0	9	1894 - 1956	K	4-8-4	30	1932 - 1967
Fb	0-6-2T	20	1897 - 1943	G	4-6-2	6	1937 - 1956
Ub	4-6-0	22	1898 - 1957	Y	0-6-0T	3	1938 - 1958
Wb	2-6-2T	12	1898 - 1957	Ka	4-8-4	35	1939 - 1969
L	4-4-2T	10	1899 - 1939	Kb	4-8-4	6	1939 - 1969
Ua	4-6-0	6	1899 - 1937	J	4-8-4	40	1939 - 1971
B	4-8-0	10	1899 - 1967	Ja	4-8-4	38	1947 - 1971
La	4-4-0T	5	1900 - 1928	Jb	4-8-4	12	1949 - 1968

"Register of New Zealand Railways Steam Locomotives 1863-1971" by W.G. Lloyd (NZRLS, Dunedin, 1974) is basically a list with details of every steam locomotive owned by the NZR, with the historical background briefly sketched in and over 100 vintage photographs. A more abbreviated account is given in the 50-page illustrated booklet "Steam Locomotives of New Zealand Railways" by T.A. McGavin (NZRLS, Wellington, 1961).

The authoritative railway periodical is "The New Zealand Railway Observer" published quarterly by the New Zealand Railway and Locomotive Society Incorporated. The society has also published, as mentioned before, many books of high quality on railway and associated transport matters, as well as a number of locomotive and rolling-stock drawings. Two of these books, "Locomotive Selections" (1974) and "Jubilee Selections" (1969), reprint material from earlier issues of the "Observer". At the time of writing this article, membership enquiries are to be directed to P.O. Box 5134, Wellington.

I have not given details of the model railway press in New Zealand, because I am not sufficiently familiar with the overall picture to do it justice. Perhaps some reader could oblige the Editor with the details.

As for previous articles in this series the table lists each class of steam locomotive and gives the wheel arrangement, the number built, the year the first example was introduced and the year the last one was written off. The chart summarizes the more important classes. The figure under "number built" is accurate in most cases, but is intended mainly as an indication of the relative importance of each class — the istuation is confused enough when some members of a class are built some time after others have been written off, but it gets even worse when engines are lost before they are even put into service.

A few comments about some of the classes may be helpful.

The E class included two Vulvan engines which were smaller than those built by Avonside. Although the class was officially written off in 1899, at least one remained in use until 1918. A drawing of the Avonside version appeared in the NZRO for Summer 1969/70.

Starting in 1892, twelve of the F class were converted to Fa by the provision of side, instead of saddle, tanks and other modifications, and one FA was built new. In 1897 one F was converted to a 0-6-2T and reclassified Fb; the 13 Fa engines were similarly modified during 1900-04 and 6 were built new. Seeing that this eliminated the 0-6-0T Fa's, the Fb's were all reclassified Fa in 1905.

Although the C class were originally built as 0-4-0ST engines they soon had a pair of trailing wheels added to improve stability. A drawing was published in the NZRO for Autumn 1974 and also in "Steam Locomotives of New Zealand Railways".

In 1917 four of the J class were converted to tank engines and reclassified Wa, although they had little in common with the 11 Wa engines built new in 1892, and some of the remainder were fitted with tender cabs for shunting.

Although the M class were originally built with the 0-6-0T wheel arrangement, they were converted to 2-4-4T engines during the period 1888-90, a modification which probably seemed a good idea at the time.

The H class were the Fell type for the Rimutake incline. "A Line of Railway" by W.N. Cameron (NZRLS, Wellington, 1976) has a plan of the Neilson version as well as numerous photographs, and "Jubilee Selections" has a plan of the Avonside version.

The A class engines were introduced in 1875 were built by E.W. Mills at the Lion Foundry in Wellington. They were named Skunk, Wallaby, and Possum, names which must seem a little uncouth in comparison with typical British locomotive names such as Athelhampton Hall, city of Stoke-on-Trent, Duchess of Buccleuch, Earle of Mount Edgecumbe, FitzHerbert Wright, Isambard Kingdom Brunel, King's Own Yorkshire Light Infantry, etc., etc., etc. (It is reasonable to respond by pointing out that there is something equally amiss with such typical British locomotive names as Gnu, Crawley, Herringbone or Sandwich, but I fear we digress.) An

Class	1880	1890	1900	1910	1920	1930	1940	1950	1960	1970
F										
A										
C										
D										
J										
R										
Wa										
Fa										
Fb										
Ub										
Wb										
Q										
Uc										
Wd										
Wf										
A										
X										
Wg										
Ba										
Ww										
Aa										
Bb										
Ab										
Wab										
C										
K										
Ka										
J										
Ja										
Jb										

account of the A class, along with some drawings, is given in the NZRO for Autumn, 1958, and is reprinted in "Jubilee Selections". The exact date when these left the NZR service does not seem to be explicitly stated anywhere.

The L class were a rather complicated lot. There were originally ten 2-4-0T engines, but during 1893-97 three were rebuilt as 4-4-0T's and classed La. These were then rebuilt into 4-4-2T's, as were four more of the original version, and classed L, the remaining three originals being sold and replaced by the 4-4-2T type. At least one of the class lasted as a works shunter until 1954.

The R and S classes were both single Fairlies; an S-scale drawing of the former appears in "A Line of Railway". Three of the S class saw service on the WAGR as their I class.

In addition to the V class built for the NZR, three similar engines were taken over from the W&MR and written off in 1922.

The N class was similarly augmented by two engines which lasted until 1928: the last four of the NZR engines were an improved version but were withdrawn five years before the original design. One of the N class, number 27, was converted to a Vauclain compound in 1895 and written off in 1927.

A very good sectioned plan and elevation of the W class, to a scale of 1/2" = 1", was published in the magazine "Engineering" for 29-1-1892.

The last Wa which had been converted from a J class was withdrawn in 1933.

Although all the Ub class were built in America, there were certain subtle differences. Ten were built by Baldwin with Stephenson valve gear, and were in service from 1898 to 1936, ten by Baldwin with Walschaerts valve gear (1901-1957) and one by Brooks (1901-1933).

The last five of the B class had a modified

running plate and sand dome. Four were re-boilered and superheated, starting in 1924, then given shunting tenders, starting in 1928. Two were converted to We class tank engines in 1902 and another in 1943.

Having previously sorted out the L class, we now find further complications developing. When the Midland Railway was taken over the government acquired five La class engines which had been built with the 4-4-0T wheel arrangement and were never converted to the 4-4-2T type. Another engine from the MR was a D class 2-4-0T which lasted only a few months with the NZR.

The Wf class also saw service in Australia when eight of them became the DS class of the Tasmanian Government Railways.

The A class were, with one exception, built as De Glehn compounds, but were converted to simple expansion engines over the period 1941-1949. The X class were also built as compounds, but commencing in 1943 twelve of them were converted to simple expansion and this type outlasted the compounds although probably not used after 1955.

The NZR acquired a further 20 locomotives on the takeover of the W&MR. These comprised the Bc, Na, Nc, Oa, Ob, Oc, Ud, Wh, and Wj classes, in addition to those incorporat-

ed into the N and V classes. The Bc, Na, Nc, Oa and Oc classes were all Vauclain compounds.

Fourteen of the Wg class were modified and taken into the Ww class, starting in 1940. The Wab class was a tank version of the Ab: some of them were classed Ws until 1935 and some were rebuilt as Ab's.

The three G class 4-6-2 + 2-6-4 Garratts had been out of service for some time before they were rebuilt into the six Pacifics, also classed G.

A notable feature of the C class is that they were designed and built specifically for shunting. The Ka class were a development of the K class, and some were partially streamlined at first, as was the Kb which was a further development fitted with a booster on the trailing truck. The K and Ka classes were converted to oil-burners, but not the Kb.

The J class were at first partially streamlined, the conical smokebox front with central headlight and the boiler-top casing being very similar to the treatment later given to the NSWGR C38. Twelve were converted to oil-burners and classed Jb, and an improved version was classed Ja.

Mention has been made of the plans published for some locomotive classes. In addition the NZRLS has published a number, mostly

to a scale of 3/16" = 1', comprising the following classes: F, Fb, A, G, J, L (2-4-0 and 4-4-2), La, K, Q, T, P, N, O, U, Ub, Ua, Q, Uc, X, Wh, Ob, Oc, Nc, Ud; G (Garratt and Pacific), and K.

It is interesting to take a brief look at the last few years of steam operation. The last steam locomotive, Ja 1274, entered service in December, 1956, but by then the Tr, Ds, Dsa, Dsb, De, Eb, Df, Da, Dg and Dh classes of diesels were already in use. In March 1960 there were about 380 steam engines normally in service. Five years later only two further classes, the F and Wa, had become extinct but the numbers in most other classes had been halved. The exceptions were the versatile Ab's and the modern designs based on the J and K classes, although the K's themselves had fared badly, their numbers dropping from 30 to 3.

December 1967 saw the end of steam in the North Island, and steam working on the west coast finished in June 1969. Toward the very end there were only a couple of Ab's used on Christchurch - Lyttelton trains and J and Ja's for the Christchurch-Invercargill expresses which required steam heating in winter. In March 1970 there were 3 J's and 15 Ja's available for these expresses, which were eventually steam-hauled only two nights a week until the last one ran in October 1971.

REFERENCE MATERIAL FOR MORE REALISTIC ROAD VEHICLES.

Whether we model Australian, British or American prototype, a great many of us H0 modellers set our layouts in the Golden Era of Steam, the period between the wars. However, the effect we are trying to create is often lost if our structures, figures and vehicles do not at least approximate the same period as our trains. Even a non-modelling visitor can detect something is wrong when we tell him that the train before him is a perfectly detailed model of the branch train which ran to Richmond in April 1937, and yet the road vehicles awaiting our 1931 passengers are beautifully detailed models of Ford Escorts, VW Passats and Mercedes.

To try to make our 1931 roads as realistic as our rails, Horse-drawn vehicles are essential. However, outside museums, there are very few places these days where we can observe them and most of the published information seems to be aimed at the modeller who wants to recreate every nut, bolt and washer, not to mention every knot hole. But a recently published book should help, this is **Australian Horse-drawn Vehicles**, by Ian Badger, published by Rigby for around 6 dollars.

This excellent little book gives a brief history of horse drawn vehicles from 1788 to the 1900's, outlining differences in design and construction in non-technical terms, repro-

duces commercial advertisements for vehicles and then gives a brief description of each type of vehicle, illustrating each with a photograph or sketch. There seems to have been an almost infinite variety of vehicles, but at least after reading this book you will know the difference between a briska and a Phaeton, and able to pick a gig from a landau.

Sources of parts for modelling horse-drawn vehicles are very few and far between, but most modellers will know about the Airfix Wagon Train and W.W.1 Horse Artillery Kits. Also Slaters in the UK and Jordan in the US produce kits for vehicles and make wheels available separately. Then there are one or two white - metal kits, and the ready made vehicles by Preiser and Roskopf - beautiful models but a bit too expensive in Australia.

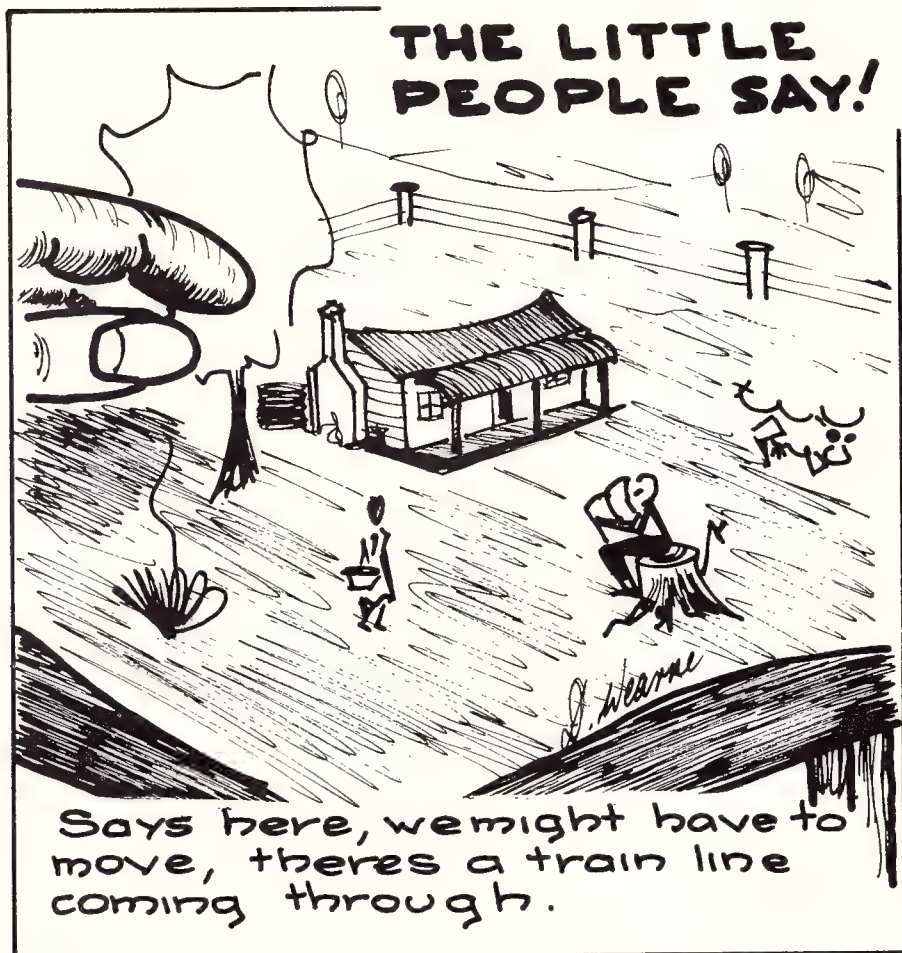
Another type of vehicle very common in the steam era, but rare now is the motorcycle and sidecar combination. These would be terribly fiddly to scratchbuild, but fortunately a source of supply can be found in the H0 scale military kits produced by firms such as Airfix, Matchbox, Fujimi and Esci. As these military vehicles were 1940's adaptations of 1930's civilian vehicles, they are just about right for our period. Usually they come in a kit with a small 4 wheeled vehicle. Sometimes these can also be used on the railway, but even where too military, at least the wheels and chassis can be used as the basis of a civilian vehicle.

For anyone who did want to try scratch-building motorcycles, or to use the commercial parts to produce vehicles of an earlier vintage, a cheap source of reference is "**Historic Motor Cycling**" by Peter Jones, and available from the newsgagents for \$2.50.

This is a 120-page magazine type publication containing a vast number of photographs of motorcycles and combinations, from the 1900's to the 1940's, also articles on motorcycles and motorcycle sport during the period and reproductions of period adverts.

While the Railway Modeller is in the model shop having a look at military kits, it's also worth a glance at the kits produced to help military modellers create dioramas for their models. These kits include such things as Oil drums, boxes, barrels, crates, sandbags and hand tools, all of which are as useful on the model railway as on the miniature battle of El Alamein.

P.F. Savery





4016 heads an Up goods through Beresfield. 7/10/1966. A string of loaded RU four wheelers head the consist. Photo by Alan Templeman.

A NEAR ENOUGH NSWGR 40 CLASS

A conversion in H0 scale, using a Jouef 8436 loco and Friedmont 40 class body kit. Described by Eddie Garde.

This model was built out of the Jouef 8436 because the bogie wheel centres are almost to the correct scale for the 40 class. I suppose the Jouef 8451 could also be used, if the bogie wheel base and inside layout is the same.

Start by undoing the brass screw in the fuel tank, clip the body off the chassis and put the body aside. Undo the circlips and remove the bogies from the chassis. Be careful when removing the large gear wheel from the top of the power bogie, as it has a square hole in it.

Bogies and Chassis.

Before making a start on the bogies, get hold of some photos. I used the photo and plan out of AMRM, issue No. 51 and photos of both sides in 'The Railways of New South Wales, 1855-1955'. If that isn't enough, one can always go out to Thirlmere and get more details. Another source of information is the T.R.M. 'Round House' of Winter 1974, No. 2. Cut off part of the plastic sides of the bogies generally as shown, leaving a location piece at the centre axle box.

Make a tracing of the new bogie sides, transfer to approx. 1mm thick rigid styrene, cut out and glue onto the bogies. Cut out and add the axle boxes, the round ends being slices cut off a broken knitting needle. The springs are also made out of broken knitting needles with grooves cut in with a small triangular file

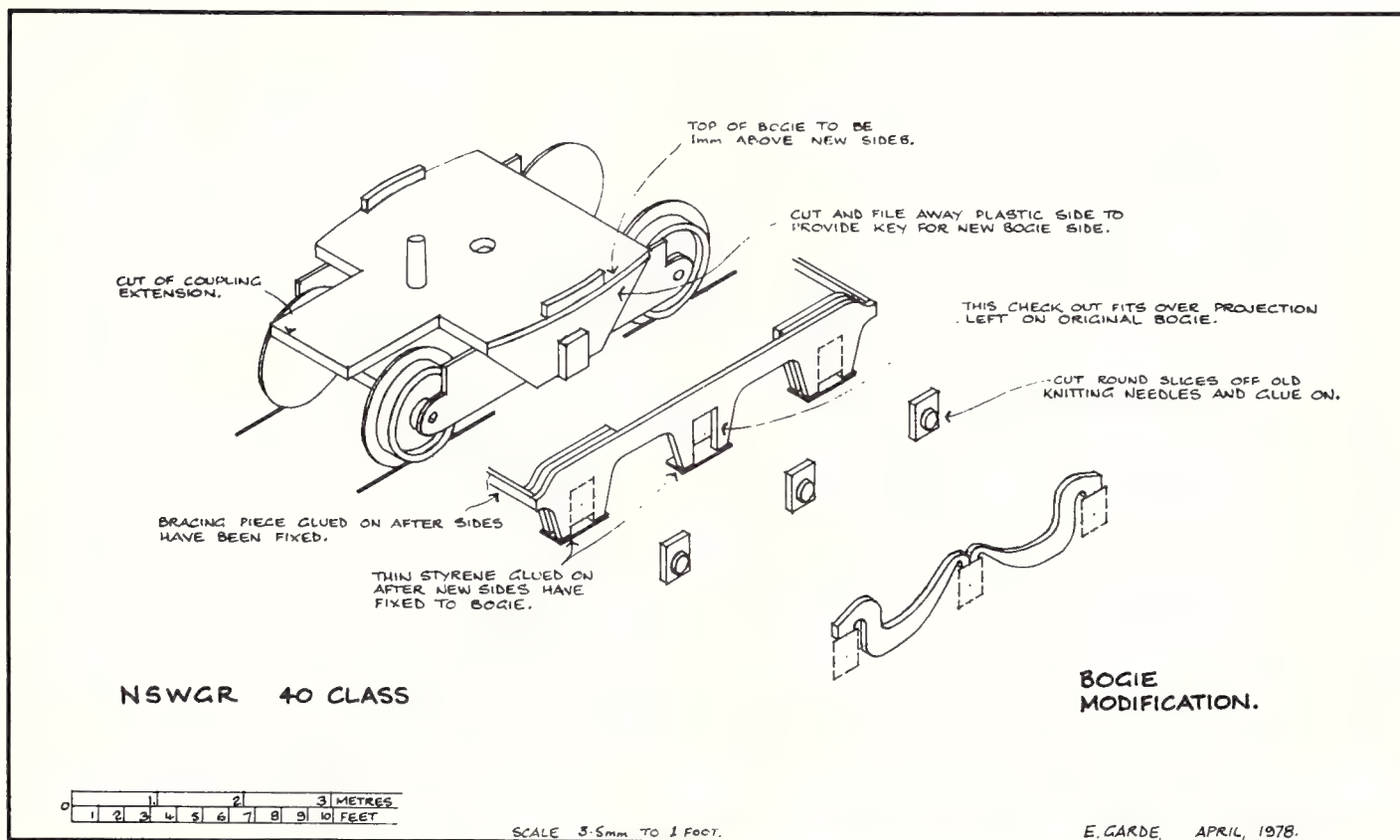
to represent the coil springs, before glueing into place.

I found that the Friedmont footplate/catwalk was 2.5mm too short, one end was 35mm wide and the other end 36mm wide. Surely it is easy enough to make a model to the right size than to make it the wrong size when it is so close. I filed it down to just under 35mm wide and added styrene to both ends to

make it the correct length, ie. 182mm. Cut out the various sections of the Jouef chassis supporting the motor and bogies, alter the pieces containing the electrical pickups, and glue into new corresponding cut outs in the Friedmont footplate/catwalk.

If you drop the Friedmont footplate/catwalk and break it into half a dozen pieces as I did, it will glue back together OK, with 5





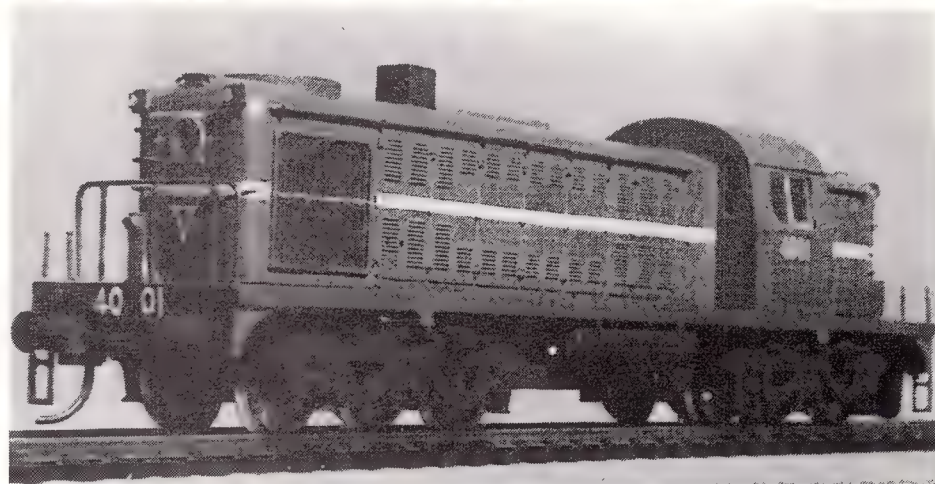
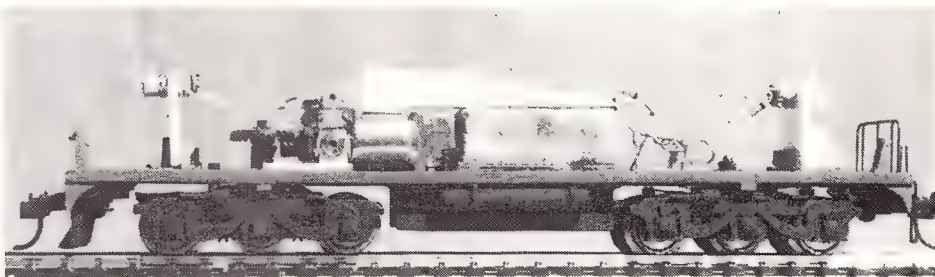
minute epoxy. I then found the Friedmont fuel tank too short and too deep, so, it was replaced with 1.5mm rigid styrene. Make a timber mould to suit the space between the fuel tank sides, melt some lead and make a weight and epoxy into position. As this weight was a little over half the original 185 gram weight, another weight was added above the footplate/catwalk. This weight also served to fix a styrene bracket to hold the motor. Cut the round air reservoir (which is also too long), off the Friedmont fuel tank side, shorten it and epoxy into place. Add the fixing straps out of thin styrene or similar.

The buffers are made from small flat head nails, with thick styrene fixed with epoxy to both sides. When dry, put into the chuck of a small lathe or drill and turn down roughly to size and shape. Final trimming is done by hand with small jewellers files. I then tossed away the rest of the small Friedmont parts, replacing them with the smoother rigid styrene, but kept the body. Fit the couplings of your choice, make up the steps and handgrips etc., and fix into place.

The Body.

If you do not wish to go any further, fix the body on, as is. I wanted mine to look more realistic, so I carried out further work. The body has a sticky feel about it, so sprinkle some talcum powder on it occasionally. The cabin roof is the wrong shape, so that will have to be filed down to the correct shape. Cut off the moulded horn cluster which looks awful, and make a new set using the horns off the Jouef body which was put aside, but an extra one will have to be made up. Cut out all the windows, and also the headlights and reglaze with clear plastic. File off the handrail and fit a wire handrail with small metal brackets about 0.5 to 1mm away from the body. The step irons at each end are made from small staples, bent to shape and fixed with epoxy.

If you have the book 'Locomotives of Australia', there is a good photo of the front and top of this loco. The half round section on the roof near the exhaust stack (shown in the centre of the body), is made from a knitting needle, filed in half and glued on with epoxy. When set, cut and file away all the surplus epoxy that squeezes out. Make up and fix the handbrake wheel. (I used the wheel off a Rivarossi 1832, which I hope one day to convert to a 45 class as the bogies are similar but over scale). The little side lights are made



up with a little cube of styrene, about 1.5mm, glued to a small styrene angle and the whole lot fixed into a slot cut into the body with a small Exacto saw.

I painted the model Royal Blue as 4001 and 4002 were in 1954 for the Royal visit. If you wish to paint yours Green, as this loco was originally, do not raise the multiple unit plug socket, and it may be correct to leave the exhaust stack to one side as it is on the moulded body. Also do not fix the handrails on No. 1 end as the photo in 'The Railways of New South Wales 1955-1955' shows the loco without it. As there were some early modifications to the loco as noted in the 'Round House' of Winter 1974, No. 2, perhaps some reader may let AMRM know when these modifications took place. If the model is painted Red, then

you can always have all the modifications on it as it now stands at Thirlmere.

I can now start my next project, converting a Jouef 8527 into a N.S.W. 70 class.

WESTRAIL MISCELLANY — 1

The 'Wildflower' names given to Westrail's ADF class power cars are:

- ADF.491 — Boronia
- ADF.492 — Crowea
- ADF.493 — Grevillea
- ADF.494 — Hovea
- ADF.495 — Leschenaultia
- ADF.496 — Banksia

Paul Rogers



The expertly cast rocks enhance this picture, note the folding and faulting. The bridge blends well into the general scene. Jack Parker photo.

SCENIC ROUTE

Helensville Loco Depot. Note the smoke around the engine house flues and the wood water tank. A Ka class is on the turntable, with a Ja class in front. A Da class mainline diesel electric is on one of the engine house roads. New Zealand modelling at its best, captured through the lense of Jack Parker.



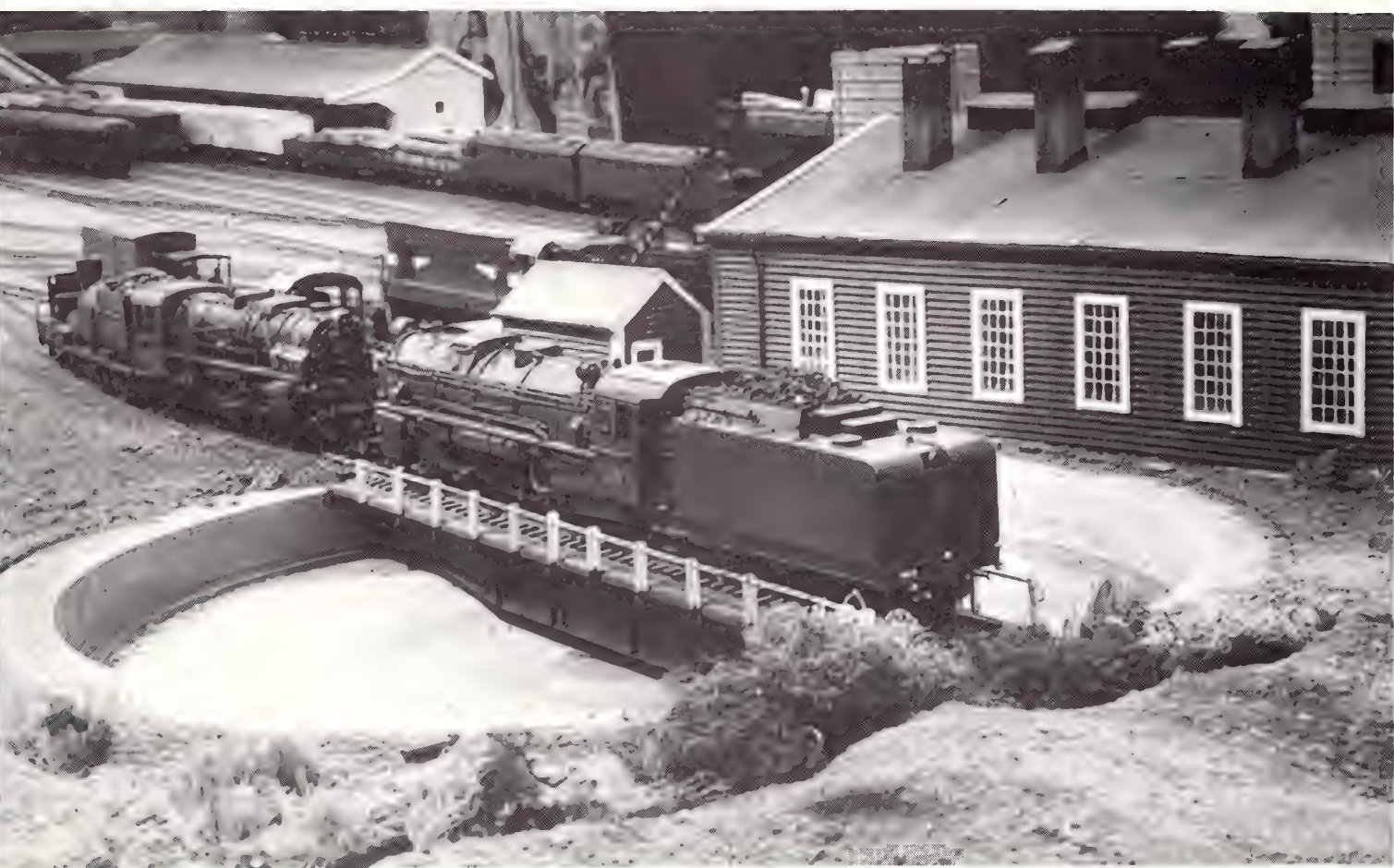


This picture illustrates the very effective use of a H0 scale bridge kit. The cast rockwork and use of carpet underfelt makes very nice scenery.

The layout shown here is based on Helensville, New Zealand. The period depicted is the 1930's, though there are occasional visits from more modern types of trains. Helensville was the terminus of the Kaipara Ferry, and Ross Hughes' layout faithfully captures the atmosphere. The scale is Sn3½ and the size is about 13 x 5 metres.

The photographs were taken at the Downtown Centre, Auckland when Ross' layout formed part of a display held for the Waitemata Convention in Easter, 1978. Many of the locos and rollingstock in the photos belong to Darryl Smith and show very fine workmanship. Photo credits must go to Jack Parker of Sydney, and regular contributor to this magazine.

Another view of Helensville Loco Depot. Helensville Station can be seen in the background. Jack Parker photo.



AN INTRODUCTION TO SHARPER PICTURES

One of the greatest problems confronting a large number of amateur photographers is their difficulty in shooting sharp, clean pictures.

In fact, this seems to be an area of considerable consternation among those who not only shoot railway pictures, enjoy photographing other hobby interests such as old buildings, motor cars, aeroplanes and in some cases, even scenery.

Fair enough, we all take a brum picture now and again, but should it happen with monotonous regularity, time is ripe for a general enquiry into what is causing the problem.

Regarding railway pictures, it is fair to say that given good light, a reasonable camera and lens and if one takes the time to set the machine up properly, sharp clear pictures should be obtained almost every time.

However, the pitfalls must always be remembered. For instance, is the shutter speed fast enough for the job? It is useless attempting to blaze away at a 110 km/h express at close quarters with a shutter speed of 250th of a second. Even set at 500th it can be difficult to pull the action up. If the camera has a 1,000th, use it.

Whilst the above comments relate to the obvious standard close-up 3/4 view, the same can be said for those "across the lens" shots too, except the technique can differ considerably.

Anyone who (for instance) is shooting a dead side on at reasonably close quarters and who expects to line up the picture and await the train to sweep into the viewfinder before firing can be asking for trouble should he be shooting below 1,000th. It is always doubly difficult to freeze anything passing by the viewfinder than that coming at it.

On the other hand, the experienced operator will often approach this situation by what is called camera pan. In fact, this technique is recommended when an allusion of speed is required. Some people have the misguided view that by shooting a train which is travelling very fast and obtaining a blurred, detail-less result with dead sharp country-side around the subject, a great allusion of speed is obtained.

As far as I am concerned, and I feel sure that most readers will agree, should we be photographing a train (or a racing car, or a jet plane or a sprinter - or anything with movement), we want to see that subject. To generate that element of speed, we blur the scenery, not the subject.

Now, remembering this, it is possible to actually shoot that side on 110 km/h express train with the camera set on a 60th of a second! That is providing the photographer pans well before the actual point of shooting and continues to smoothly pan after shooting.

I don't want every reader now running off and attempting to do this straight away, for it takes practice. Better still, try a few dummy runs first, get the feel of the speed things happen through the viewfinder and when panning for the first time, shoot at a 250th before working down.

I mention that we should start panning before the subject arrives and continue to do so after shooting to ensure smooth equalisation of the subject's speed. Don't however do what some people do, start panning early, but when reaching the point when shooting is to be made, stop dead before firing. A blurred picture will result every time!

Another area in which many have trouble is in the depth of field department. By this, I mean the depth of the picture which is actually in focus - or to put it yet another way, the zone which extends in front of, and behind the plane of actual sharpest focus.

Should the camera's aperture be set wide open, (an f. stop of around 2, and 3.5 - or what-ever) the depth of field is at its worst region. On the other hand, should the aperture be set in an extreme closed position, (in the region of f.16 or f.22), depth of field will always be at its best.

The above comments are academic for when using (for instance) a wide angle lens, the wider its focal length, the better the depth of field. On the other hand, when using telephoto equipment, the depth of field becomes alarmingly small, and even more so with Zoom lenses.

PHOTOGRAPHICALLY
SPEAKING
CONDUCTED
by
Leon Oberg



The problem with railway pictures now arrives. Because we are often required to shoot action subjects, a fast camera shutter speed is generally necessary (discounting panning as earlier discussed). Because of this, the lens will correspondingly have to be well open reducing the depth of field. In fact, in cloudy conditions, the lens will be open that much more reducing this zone of sharpness further still.

Now, this leads me to last issue's discussion regarding the new fast films. Remember we looked at the 400asa HP5 black and white and the 200asa Ektachrome. By using films with a high asa rating, we can have much more control over the depth of field, particularly when using telephoto lenses in poor lighting conditions.

If depth of field still remains a mystery to readers, may I urge you to inspect your cameras for a depth of field preview control, a mechanical release of automatic diaphragms which allows through the lens viewing at the aperture selected. It is possible to observe the entire picture area for sharpness, and make any focus adjustment to correct.

Photographers who know their gear will often focus their cameras without even viewing the scene through the view finder. This method, highly recommended for those with poor eyesight, or when required to focus

This picture should illustrate the discussion dealing with depth of field and show that even in dull rainy light, and with the added disadvantage of a tele-lens, sharp pictures can be obtained.

NSW Pacific, No. 3801 had just steamed into Junee from Wagga on an early winter-like misty morning on April 23, 1972. Due to the poor light, an extremely slow shutter speed was necessary to ratio the small enough lens opening to obtain the depth of field. The picture was shot at 125asa on FP4 film with a Nikon F Photomic at 60th second at f.8. Additionally, the use of the medium 135mm telephoto lens provides that extra train detail by in effect, bringing it up toward the camera.



quickly and accurately will focus according to the engraved depth of field markers which are beside the focus ring on the lens barrel of all reasonable cameras. Simply set by hand the infinity marker adjacent to the aperture selected and you are in business. Say for instance we are shooting at f.5.6. With the infinity marker set beside this reading, everything will be sharp from the distance up to the lower f.5.6 indication marker (with most 50mm lenses it will be somewhere around 18 to 20 feet). We now know that without actually focusing, everything between about 20ft. and the hills is in focus.

This method of course is discussed assuming one is photographing general outdoor railway type shots and whilst it can be used for a large number of photographic assignments (many commercial operators pre-focus this way when covering weddings and other social events), it can not be used as easily when photographing ultra close-up work such as models. Model photography is a world of its own where the smallest possible aperture is generally a MUST for maximum depth of field. In fact, I will cover this type of photography in due course!

Another form of blurred picture can come from camera shake. One has raced across a field in the hot sun, only seconds remain before the train is within range. Breathing is heavy, you are trying to hold the camera steady. Click — and the result is blurred due to camera shake.

If this is your individual problem, make sure you can shoot at the highest speed possible and also develop a habit of NOT breathing for the few seconds either side of and during taking. After chasing railway trains in this manner on thousands of occasions, and racing up and down football sidelines for nearly 15 years, I can assure any doubting Thommases that this method is the best there is.

Should any reader have mastered all of what has so far been discussed, and still the pictures are somewhat out of focus, it might pay to have the equipment looked over for the camera may have suffered a drop (unknown to the owner the kids may have dropped it) and a lens element may be out of plumb.

Another area in which I have seen at fault is the film pressure plate, a spring loaded flat plate located inside the camera back. Sometimes during cleaning, or through rush film loading, this piece can lose tension and slip out of its provided slots — or grooves. This can allow the film to drop slightly out of true plane.

One final guide to sharpness can be the

Continued on Page 54

Judging by the lack of sharply defined shadows Peter Watts also had an overcast sky to work with when he photographed X51 and an airconditioned train on the Victorian standard gauge. The results show once again that sharp photos are possible in dull weather.



This is what happens if you shoot a dead side-on fast passenger train without panning, and at a medium camera shutter speed, (taken January 1979 for this article. Nikkormat FT2 using FP4 at 125asa).



Now using 250th of a second once more, but panning, we see how the foreground moves at a greater rate than the Flinders Ranges in the background, quite a satisfactory result. ANR CL-class 2240 kw unit CL5 is the locomotive which on this occasion, February 8, 1978 was pictured at 110km/h when nearing Winninowie with a west-bound Trans Australian. (Nikon F Photomic with 135mm lens using FP4 at 200asa).



For those who really want to illustrate movement, this picture might hold the clues, having been shot at 60th second. The NSWPTC unit, No. 42217 was close to 100km/h with a passenger service when pictured on December 27, 1978 specially for this article. (Nikon F2 Photomic with FP4 at 125asa).



In 1978 a reader wrote to the Editor seeking information on NTRAK. Jim Costello has now prepared this review of the history of the NTRAK concept and some information about NTRAK in Australia.



THE DEVELOPMENT OF NTRAK

Statistics show that N Scale has established itself as one of the major scales in Model Railroading; however it is only the serious modeller who knows this. Not many modellers in other scales know that some locomotives will pull over 50 cars from various manufacturers; and that a 10 car passenger train that looks realistic is under 6 feet long.

In America in 1973 a group of enthusiastic model railroaders got together at an N Scale meeting and talked about what they could do to help interest and educate people in N Scale. It was agreed that the only way to promote N Scale was to put it before the public whenever possible - the best places to do this was at established exhibitions and shows organised by the NMRA and MRA. It is the practice of these organisations not to cater for any particular scale so it was up to the individual modeller or group to organise themselves.

One of the projects that resulted from this meeting was NTRAK.

Originally NTRAK was thought of as a modular display layout where modellers from all parts of the country could build a module, bring it to a show and know that it could literally plug into the other modules and become part of one giant N Scale layout. This would require a set of standard NTRAK specifications that all builders must adhere to, particularly at all electrical and module interfaces. It was soon realised however, the NTRAK had another obvious advantage and the use of NTRAK modules has gained support and NTRAK clubs have resulted - there are now dozens all over the country.

NTRAK in America was being photographed, printed in model magazines - its concept unique but something that appeared to work. At last an idea whereby a large layout could be put together so one could see long trains running - prototypically. Yes - it had been tried before in larger scales but nothing nationally has developed as NTRAK has done in the past 5 years - the concept is now World wide.

National (US) publicity for NTRAK received tremendous support from N Scalers, Hobby Shops and Manufacturers alike. Firms such as Kadee, Con Cor, Peco, helped financially with the development such that a set of specifications could be drawn up. The first few years saw the development of the specifications change in format and ideas as more modellers became involved. The common availability of hardware for modules was also considered and proved to be most successful.

In January, 1977 a 20 page 8" x 5" manual was produced, a result of 4 years of work. This manual has been printed in a number of magazines that have appeared in Australia; however, a number of additions have now been printed that has layout and module ideas as well as a specification for NCAT - N Scale under Category.

NTRAK is thus a uniquely designed modular railroad to be built by modellers from all over the world. Its basic concept involves the individual hobbyist, groups of two or three hobbyists, clubs, hobby shops, Manufacturers and suppliers. NTRAK objective is to show off the advantages of N in its finest light by:-

1. Small, compact but beautifully detailed operating layouts.
2. Long prototype trains running on two mainlines.
3. Operation - making up trains, moving goods to other destinations and distributing the goods to designated industries along the third or branch line.

NTRAK has other advantages:-

1. It allows modellers in other scales to join in with modules and enjoy prototypical running.
2. Modellers with little time, money or room for layouts can become part of the group or form their own club.
3. Clubs can meet and have a layout that is easily assembled and dismantled.
4. A small basic module would cost approximately \$20 to build to the specification.

National NTRAK is a non profit, informal organisation run by volunteers and amateurs. Our purpose and objective is to encourage model railroading in N Scale. Beside the manual of specifications, contact to individuals and clubs is by the NTRAK newsletter published 6 times a year. The newsletter advises where groups are meeting, module ideas and photos, product information, exchange columns, clinics etc. all of interest to the N Scale modeller. From time to time selected N Scale freight cars, generally Kadee are specially painted for NTRAK and are available to anyone. A cloth patch is also available.

NTRAK modules

(artwork and layout comments prepared from NTRAK literature by Bob Yule.)

The possibilities of these modules are quite interesting. Numbers 1 to 4 were designed for a 1200 x 600mm (4ft x 2ft) and number 5 is 1800 x 600mm (6ft x 2ft). Note that number 3 was reduced from an 1800 x 600mm to a 1200 x 600 board size. These are not scale drawings so if you decide to build any of them please obtain the relevant information from NTRAK.

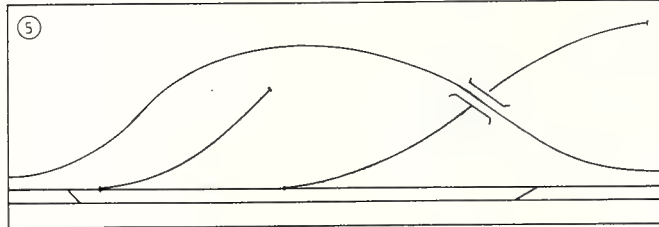
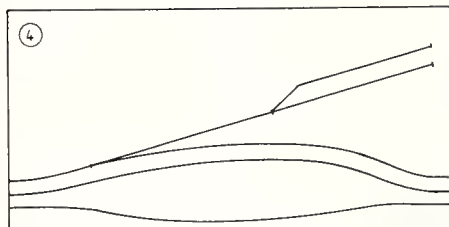
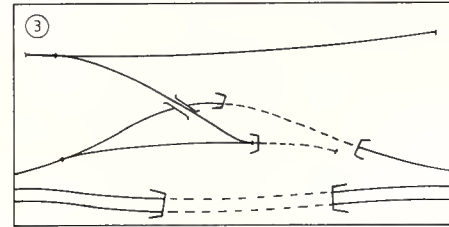
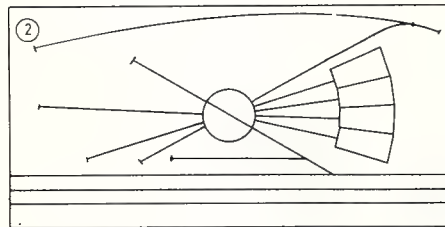
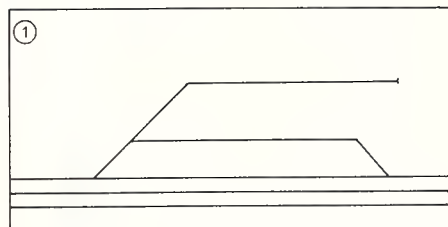
Module 1 is a standard approach to yard design and includes an engine run around.

Module 2 is vaguely reminiscent of Lithgow (NSW) with its balloon loop around the coal dump. With a small rearrangement to the roundhouse tracks a five stall roundhouse is possible.

Module 3 has a switchback to a mine with a bridge leading back over the main line. This reminds me of Dumbarton and the Metropolitan Colliery line which are both in N.S.W. A derailment in the switchback tunnel could be awkward to fix.

Module 4 brings one main line closer to the front and has a group of industrial sidings off the branch line.

Module 5 is set out for the larger board size and gives plenty of scope for the full scenic treatment. The two sidings and the passing crossovers allow lots of action.



NTRAK IN AUSTRALIA

As a N Scale modeller since its beginning the NTRAK concept appealed to myself and other modellers. Even more to the Club I am in when the idea was explained to them. The Southside N Scale club has been meeting since 1969 without a club layout — but with the NTRAK idea part of a layout donated to the club by a former member, and other modules the idea quickly developed — a large layout could be had very quickly.

NTRAK specifications were received from the U.S. We soon found that some items readily available in the U.S. were not so available here, and in one case the price was considered too dear. The problems that arose were:—

1. Particle board used for base boards were no longer available in the imperial size, but in metric i.e. a 4' x 2' board is 1200mm x 600mm.
2. Multi Conductor Connectors 'TRW CLINCH Jones' were hard to locate — then approximately \$3 for a 2 pole plug and socket.
3. Suggested Tee-nuts for levelling baseboards were not available in hardware stores.

As the module idea would appeal to many a prime requisite was to make the construction of a module as simple as possible. It is very unlikely that a module would be transported overseas — anyway the manual showed specifications for the British Isles Group which varied from the Americans.

The NTRAK Manual shows a Mains Power supply lead on each module. This allows for full mains supply around the layout without leads on the floor. (Using this one can use other controllers for yards, branch lines etc. without using NTRAK supplies). As we use the 240 volt system it was considered that this provision be "left out", for it is considered too dangerous. Each module would, by law, be wired by an authorised Electrician thus adding to the cost, and time necessary to check it out at a gathering. The result of incorrect wiring of module mains supply would be disastrous if they were connected.

Correspondence with the U.S. and a Sydney group through Bill Kerr showed that there were no problems with the changes.

The American NTRAK Manual as printed and available to us is thus changed as follows:—

1. The baseboard size shall be 1200mm, 1800mm, 2400mm long by 600 wide — all other dimensions shown to remain.
2.
 - (a) Electrical connections to be RCA type Phono Plugs and Jacks (Centre pin is pin #1, Skirt tag is pin #2).
 - (b) Mains power (240 volts) to be left off.

To facilitate easy access to components, bulk supplies of the RCA Connectors, Tee Nuts, Set bolts have been purchased by NTRAK Australia. Profit from the sale of these will be used to help finance the operation of this group in Australia.

As a result of the above decisions and the opportunity to "show off" the idea a NTRAK Modular layout was assembled for the

Brisbane AMRA Brisbane show last May. 12 Modules were put together to form a 24' x 12' N Scale layout.

At the present time another 16 or so modules are planned or under consideration.

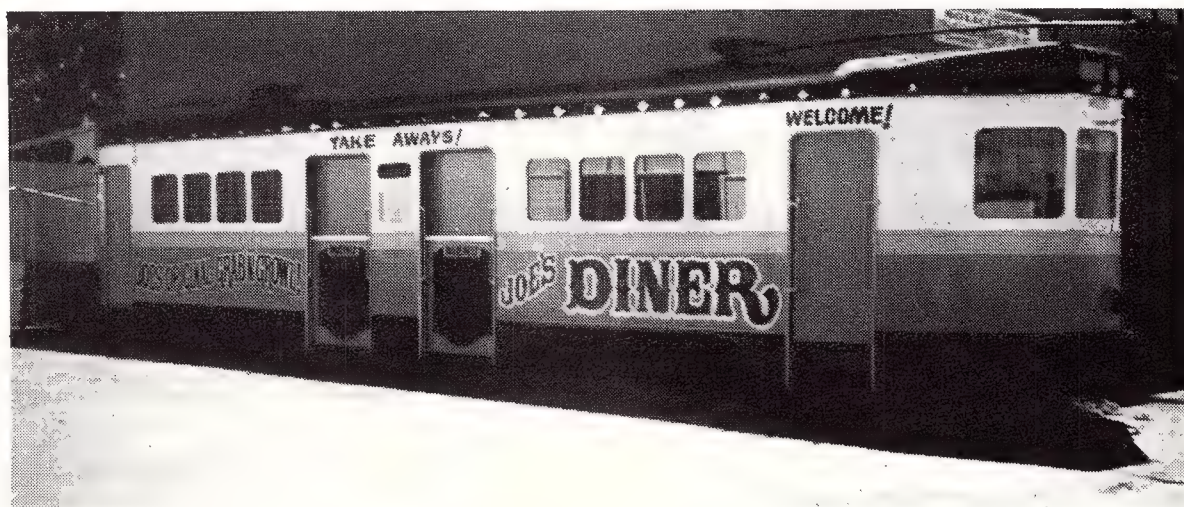
It is possible that a number of modules have been built using the NTRAK manual that has appeared in print some years ago. It will be practical (provided electrical connections are the same) to join these up to newer modules, provided equal length modules are placed opposite each other if a circuit is planned.

The NTRAK Manual contains the following sub-titles:

Modular Layout Ideas, Interface Dimensions, Electrical, Open Framework modules, Canyon/Valley modules, construction details, Leg Details, Corner Modules, Specifications, Material lists, together with diagrams, dimensions, ideas etc. that will enable a module to be constructed that will withstand all hazards associated with transport, setting up and hopefully, will connect with the module beside it.

N-TRAK
oooo ooooo

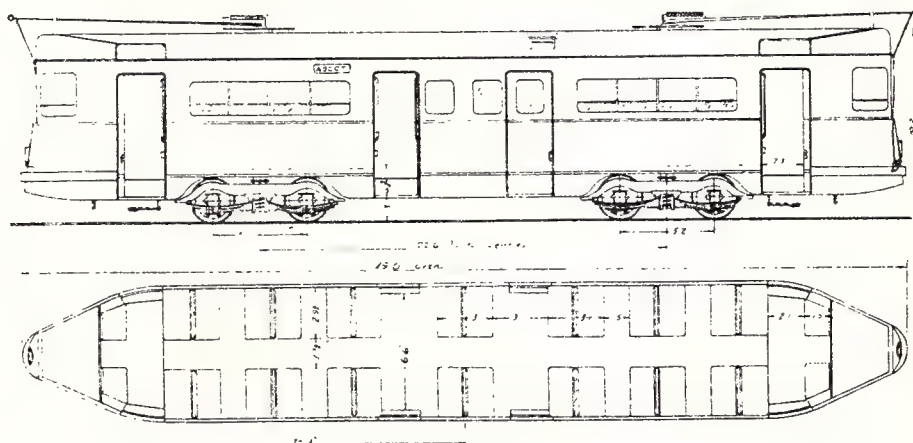
In Australia contact: *Jim Costello Jnr.,
15 Selwyn Street,
BEAUDESERT QLD. 4285*



JOE'S DINER

In 1969 the Brisbane City Council scrapped its trams and of the sold trams, one of the steel bodied "FM" class in the 400 series became a take away snack diner for a while on the Gold Coast. The tram was situated against a warehouse wall near a garage and the cooking was done in the rear passenger compartment. Take away service was provided at the centre doors which had been cut off at 200mm. below window level. A chalked up menu was provided on the lower fixed section of the door. 4 tables were fitted between the front seats for higher class patrons but no other changes were done except to repaint it. When not in use the original pull down canvas doors were used to shut up.

The original silver paint was retained from 200mm below the windows to the roof line, but the bumpers and stairs were painted black. From the bumpers gold went to within 500mm of the window line, followed by a pale blue band of 300mm. width which met the original silver. Around the roof line, coloured bulbs were put every 500mm. The wording on the rear section was "Joe's Original Grab 'n' Growl" while on the front section "Joe's Diner". This lettering was in black with white shading. Above the centre doors "take



aways!" and above the front door "Welcome". These were done in plain black.

A check between the photo and the plan will reveal that the main external differences between the FM 400's and the FM 500's, are the wider centre doors and one window as against 2 centre doors and 2 windows.

If like me you like trams and didn't know with which to start, why don't you 'AVAGO' and start with this modern "Cafe de Kerb".

*Keith Faulkner.
Photo: P. Kelly.*



4488 and 4504 head a down goods through Tumulla. Photo taken from road overbridge at western end of loop on December 4, 1973. The Up inner home and Down starting signals can be seen. Tumulla signal box is also visible in the background.

TUMULLA BANK

OR A Crossing Loop on a Hill

Compiled by Bob Gallagher.

The avid prototype enthusiast will be disappointed with this article for, while it does discuss and describe Tumulla Bank (that famed section of rail-fan territory west of

Sydney), it does not handle the history or infinite detail. The purpose of this article is to show how a passing (crossing) loop can be used to create operation and how it can be

adapted to model form.

The Prototype

Tumulla (Bank) is basically a loop — no station — no goods shed — not even a public road to gain access to the lone signal box. Tumulla is between Georges Plains and Wimbledon on the main (single) line west of Sydney. After leaving Bathurst the line starts climbing the heavy grade to Orange. Tumulla is sited roughly in the middle of a 4 mile long 1 in 40 grade and is used to cross trains as well as handle the safeworking facilities for electric staff operation. Georges Plains, Tumulla and Wimbledon are all equipped with electric staff, thus separate staff sections are Georges Plains to Tumulla and Tumulla to Wimbledon. To climb this rather long steep grade trains need to exchange staff with the signalmen, as well as haul the sometimes heavy trains up the long twisting line that passes through what could be described as typical mid-western NSW scenery.

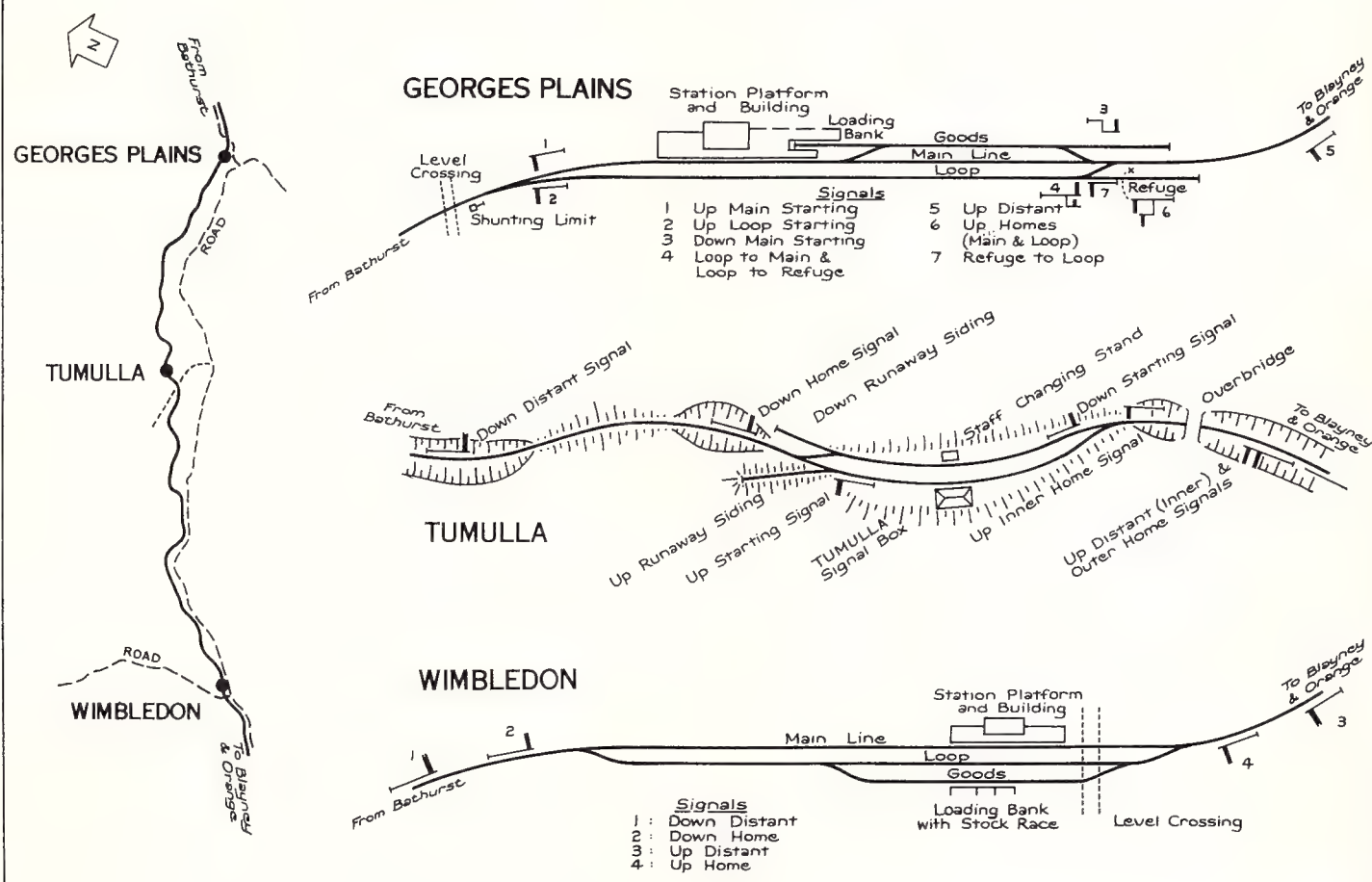
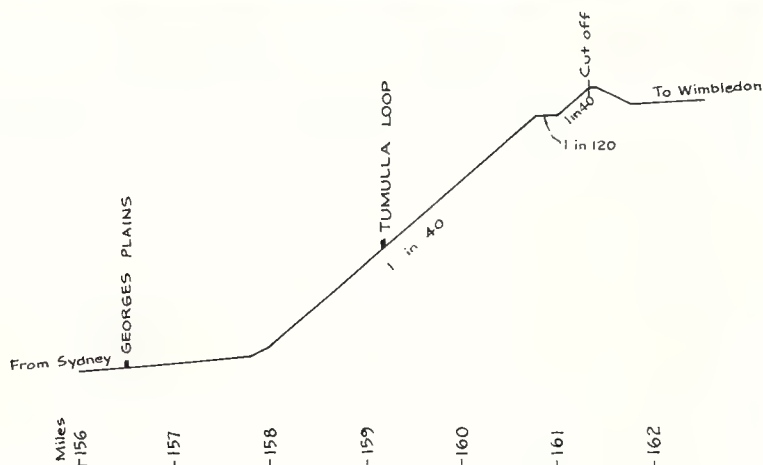
To facilitate the efficient exchange of staff a signal box, on the UP side of the loop, and a platform, on the DOWN side of the loop, is provided. Plans for both these structures are printed in the following article, and photo-

The photograph to the left shows the exchange of the staff on the down passenger with 44100 in charge. Note the small platform used by the signalman to gain sufficient height to enable him to manually exchange the staff for the section with the loco crew.





TOP LEFT: A helpful push from the rear is the duty of a bank engine. Graham Ball photo. ABOVE: Tumulla signalman exchanges the staff with the crew of 4474, which is running down the grade.





ABOVE: 5910 assists 48114 on a down goods approaching Tumulla loop.

RIGHT: A well weathered Baldwin 59 class assists 4502 up the grade. Photo by Graham Ball.

BELOW: The runaway sidings at Tumulla.

BELOW RIGHT: 4491 rolls downhill into Tumulla with an Up goods.





ABOVE: 5907 assisting 4509 with a Down goods in July 1971. This mirror image photo was taken by Phil Curnow.

RIGHT: 5917 awaits duty in Georges Plains. The driver and fireman shared a cuppa with the station master on the cold winters afternoon in 1972. Bob Gallagher photo.



graphs illustrate the type of structure used.

To enable trains to climb the grade it is necessary to either limit trains to a total weight that the locomotive can handle on a 1 in 40 grade, increase the number of locomotives to haul the train or to provide the train locomotive with assistance up the grade. All three applications were used, but the first and second were a rather inefficient method of locomotive usage for, on either side of the grade, the terrain was rather flat, and thus the engine with the light load, and the double headed units, were not hauling up to the load capacity over most of the journey.

Assistance on the grade become the more efficient method of handling heavy loads but, to make it more interesting the assistance was not to be always attached to the train; alternatively, in many cases, it would help push the train up the grade from behind the brakevan. The locomotive, in latter years being C36 class, D59 class or the 47 class diesel, was stationed at the nearby Bathurst locomotive depot, usually waiting for its work at Georges Plains, in the small dock. On arrival of the train needing assistance, and depending upon the type of train, the locomotive was added to the train. In the event of the train being a passenger train the locomotive would be attached to the front of the train loco and it would assist the train up the grade to Wimbledon, where the assisting loco would

be detached and run back down the hill, while the train loco would continue on its way westward. On both the uphill and downhill journey the leading loco would need to exchange the staff at Tumulla.

For goods trains the trains would usually pull up clear of the Georges Plains dock and the assisting loco would push up behind the brakevan. The loco would not couple up to the train. After much whistling the train loco would commence the attack on the grade assisted by the push-up loco. Both locomotives carried a staff, the train loco carrying the unit

for the section Georges Plains/Tumulla exchanging it at Tumulla (on the move) for the Tumulla/Wimbledon section unit while the push-up locomotive would carry a staff that allowed it on the section at the same time as the train loco. Hopefully, this rather confusing safeworking process will be further and better described in the Signalling series of articles.

As the train climbs the grade and gradually picks up speed (near the 162 mile mark) the train loco takes up the full weight of the train and charges off into the west while the push-up loco comes to a stop and then coasts back



The top two photographs illustrate the station complexes at Georges Plains. The dock where the bank engine waits its duty is clearly shown in the foreground of the top photograph. The station building at Georges Plains is a brick structure with ornate latticework. The signal box is a weatherboard structure, painted cream.

Wimbledon, just across the road from a tennis court, is the station at the top of the grade. The structures are of 6" clapboard and are painted weathered green. The lower two photographs illustrate two views of Wimbledon.

Unless otherwise indicated all photographs were supplied by Alan Templeman.



down the grade to await further duties at Georges Plains, or to head home to Bathurst. In some instances the assisting locomotive will travel out from Bathurst assisting a train by being coupled in the front. In many instances the assisting loco will be coupled behind the train loco and will be detached from the train at Wimbledon.

The grade diagram shows in simple form the steepness of the line travelled by the train. The track diagrams show the layout of all three areas. Note that Tumulla is protected by runaway sidings down the hill. The loop at Tumulla was used to cross trains, as were the loops at both Georges Plains and Wimbledon.

In Model Form

On a model railway loops are also used to cross trains, and if a few of the operations described in this article are applied, model operation can become very interesting (if correctly applied).

If a loop is on a grade the grade will naturally have some effect on the operation, for it will, in some instances, limit the load the loco can haul up the hill. In other cases, where the model loco can haul much more than its prototype, part of the operating procedure can be to limit the (presumed) load of the train, forcing some vehicle to be left behind in the siding to await the next lightly loaded train. Like the prototype an extra loco can be added and, for this application, some early planning must be given to track wiring to allow the second loco to be moved from its storage place onto the main line and attached to the train. This is not a difficult process but must be planned, as must the track area where the assisting loco is to be detached.

Of course, with the advent of Zero One and its many counterparts, it may be quite easy to run an extra loco up behind the brakevan to push ... but beware ... for if the push-up loco is run just a shade faster than the train loco something must give, and it usually will be the lightest vehicle in the train, closely followed by the remainder.

As already indicated, loops are necessary for the crossing of trains, but a loop on a grade can not only increase operational problems but can be entertaining. Loops are, of course, created by the use of two points (turnouts), but then that is another exercise. Naturally, a crossing loop, like any station area, needs a structure to house the signalman, and the purpose of this article shows how a loop can be useful to the modeller, and an excuse to build a signal box to fit onto the side of the hill ... as the author has done on his own unfinished layout. The pineboard scenery already has a completed signalbox in place but, somehow, the tracklaying crew got diverted to another area. Oh well, it could be named 'End of Track'.

Further Reading:

Steam Behind the Brakevan by Phil Curnow, AMRM March/April, 1978.

Further Listening:

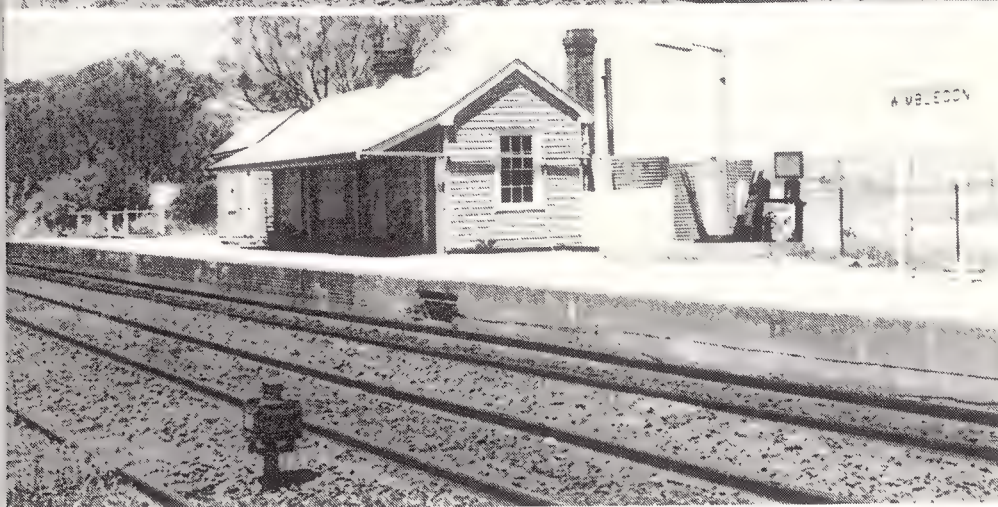
Helper Service-Steam Action. W & GWG-B-5051.

Steam Panorama 2nd Division (track 6) Steam Action Productions SAP 002.

Tumulla Bank, by Rail Recording and Film Services NSW-5 (R4LM-1106).

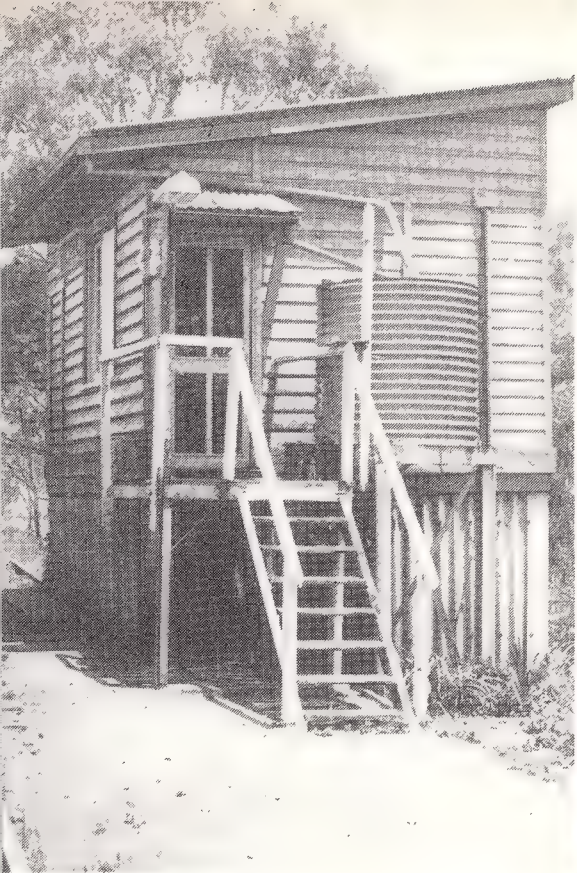
Acknowledgement:

Alan Templeman, for his assistance in preparation of drawings and photographs.



TUMULLA SIGNAL CABIN

A simple structure building project for the inexperienced modeller, as described by Bob Gallagher.



As has been outlined in previous articles Tumulla, the actual place where the signal box is situated, is a passing loop on a steep grade on the main NSW western line. The signal box houses the point changing levers and the signalman from the bitter, mid-western NSW weather.

The model of Tumulla box was built to be placed on a crossing loop (which also happened to be on a steep grade) on the author's layout. Although space is at a premium the box was built full HO size and thus, excepting errors, all prototype dimensions given in the text can be transferred straight to the model. Any metric

Tumulla signal box photographs were supplied by Alan Templeman.

dimensions will, in most instances, be actual model dimensions.

There are at least two ways to model a building; the first is to model each component as it would have been built in the prototype; the second is to model a facsimile of the building, showing only exterior detail. The first method is completely satisfying but it also requires a lot of time which, for one reason and another, the author does not have. The second method, the one employed in this article, can show results nearly as good as the first method, but the time factor is much shorter. In fact the total time from commencement to completion was 12 hours.

This will not be a complete step by step, detailed, article but an effort will be made to show the method used so that it can be applied to build any other structures. Modellers attempting to follow this article should bear in mind that, for speedy construction, it is not wise to model the signal box in the order that this article is written. Many components need to be left after assembly so that the adhesive can dry or cure. The method of attack should be to make one section and then commence another part while the first dries. For instance, the base can be made, then the floor, then the sides, the floor added to the base, the sides assembled, the steps made, etc. etc., so that

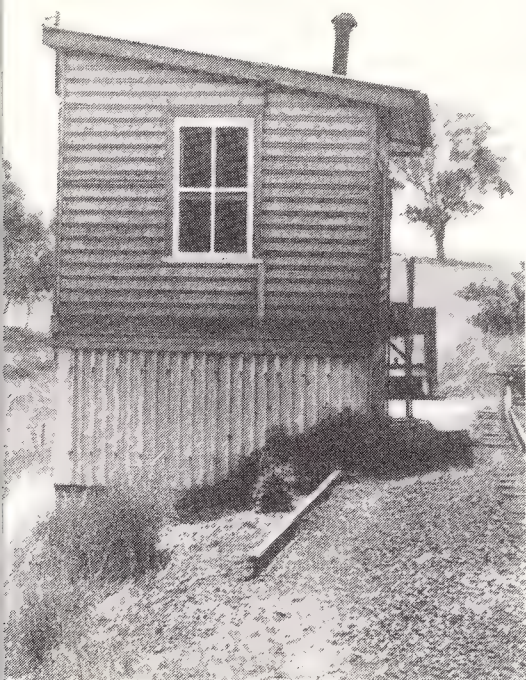
the last effort is to assemble the top of the box (fully painted) to the detailed and painted base.

The Prototype

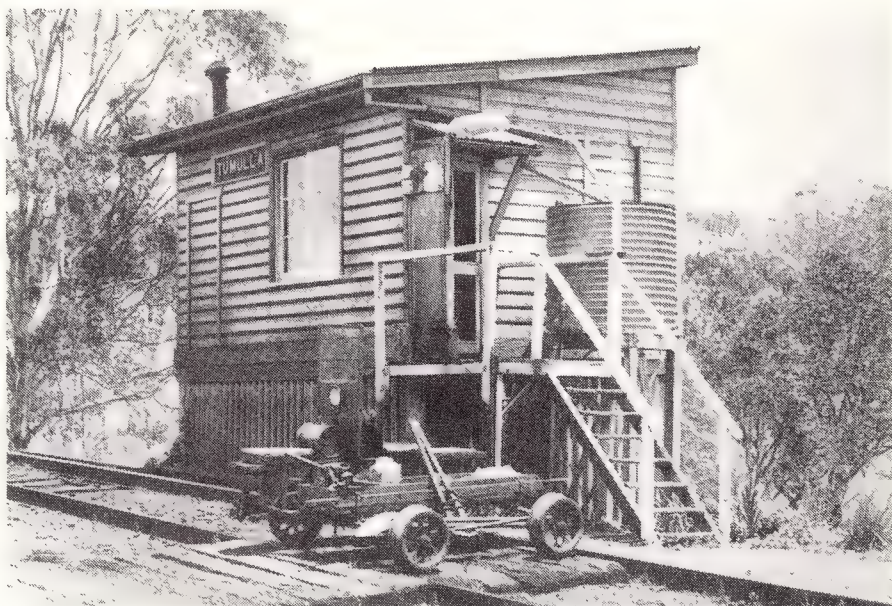
The signal box is a timber framed building clad in 6" weatherboards. The foundations are lined with corrugated (3" corrugations) fibro. The roof is galvanised iron and a stove chimney protrudes through the roof. The end window is double-hung and the front window is a two section sliding unit. The timber frame balcony is supported on old rail foundations, the steps being timber. The colour of the building is yellow with a green or red roof (depending on the year the signal box was visited). The railings are painted white, as are the edges of the steps. The board lining the floor joists is deep brown, while the name-board is black with a white surround and letters. The structure is heavily weathered (with red dust) on the track side, as shown in the photographs.

The Model

The overall aim was to build the model as close to prototype as possible so that where corrugations occur in the prototype they will re-occur on the model, etc. As the site of the signal box will be near heavy traffic the box was built "alive". Electricity was not



The weatherbeaten appearance of Tumulla signal box is evident from the photographs. Note that the rear of the structure is on a bank.



connected (240 volt type that is) but the signal box appears to be inhabited and, to achieve this, windows and doors were left in open positions. The only interior detail contemplated was a figure for the signalman to help hide the lack of detail, a fact that can be seen if the windows are open. The fly-screens on the windows and doors were not made.

Final site of the Model

Unless all model structures are being built for a future (non-existent) layout, it is important to consider the final resting place for a model — before it is built. Will it fit? Is it suited? Will it look right? All are important questions, but the most important factor is that the structure, no matter what it is, must be well sited and appear level, ie. it must be positioned on a horizontal plane (there is nothing that detracts from a structure more than to have it sitting off level). In most instances there is no problem, for many layouts are flat, but if the final position is on a

grade provide a flat base for the structure to sit on. A readily available material is 4mm chipboard which can be attached (glued, screwed, nailed) in position with the necessary provisions made to ensure it is level. The model is then built directly on a flat base so that when completed the structure can be screwed into position and easily removed if the layout is dismantled. Scenery can be worked around the site of the building before it is in place; this saves the structure from being damaged. When the structure is positioned the scenery (grass, shrubs, etc.) can be blended up to the side of the building.

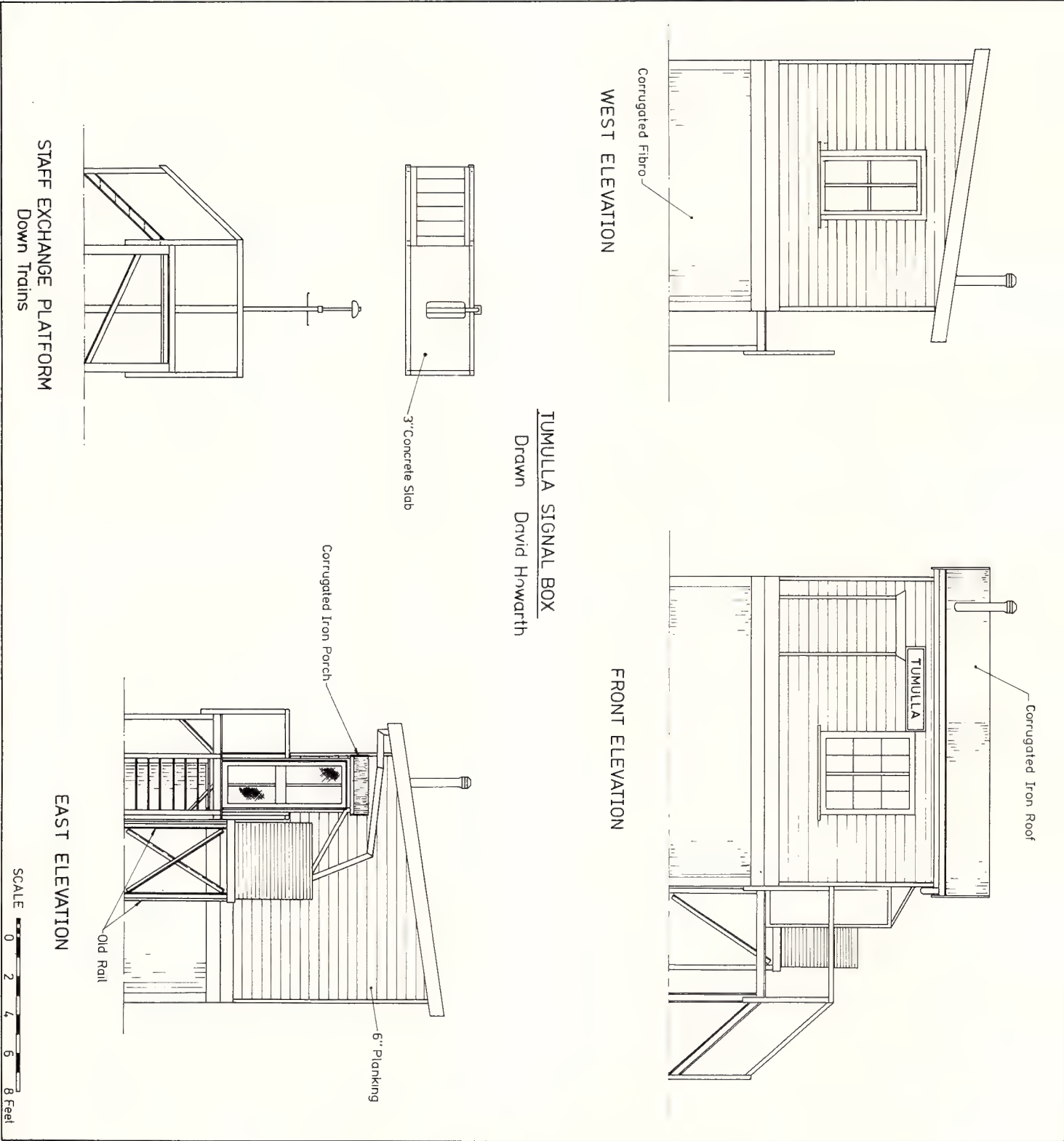
Materials

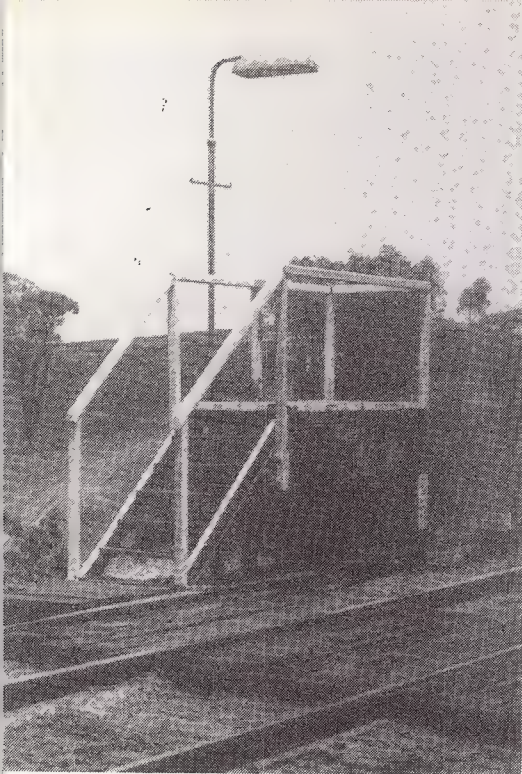
The weatherboard and other timber components were represented by Northeastern timber. This is an easy material to work with, readily available (if your hobby shop does not have it Model Dockyard and NK Hobbies have large supplies) and is easy to paint to achieve a weather-beaten

appearance. The corrugated roofing material was represented by Northeastern siding as well. Styrene was the basic building material and it was also used for detailing. The size of the styrene (plasticard) sheet will be indicated in the text but the detailing styrene was drawn from packets of Slater's Micro Strip — the "mixture" pack seems to supply the variety of sizes in the quality required.

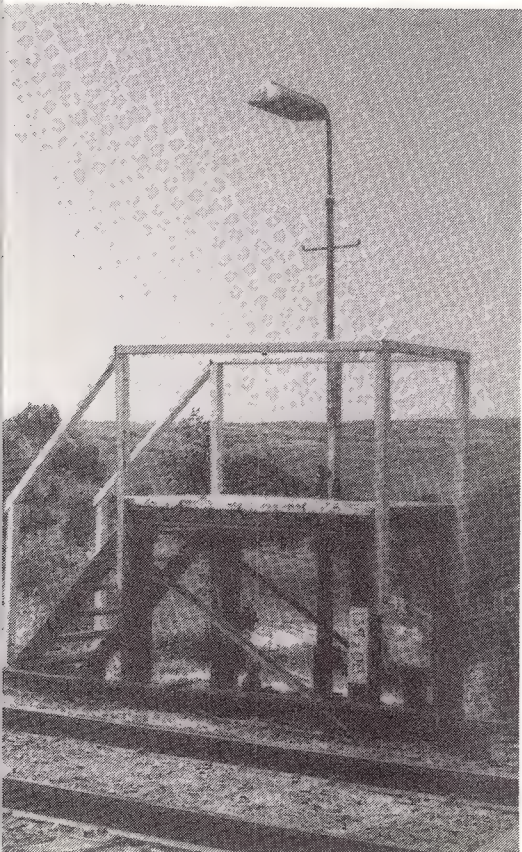
Adhesives

The old adage "horses for courses" applies here. PVC, white (drying clear), Aquadhere was used for bonding styrene to styrene and Selley's Super Glue was used for bonding styrene to timber (the MEK can be used for this as well). The Aquadhere is best used by pouring some onto scrap styrene then, using a nail or match, apply it to the joint and then press the two sides together; allow it to dry (10-15 minutes) and then clean off any excess. The MEK is best applied to the joint with a fine





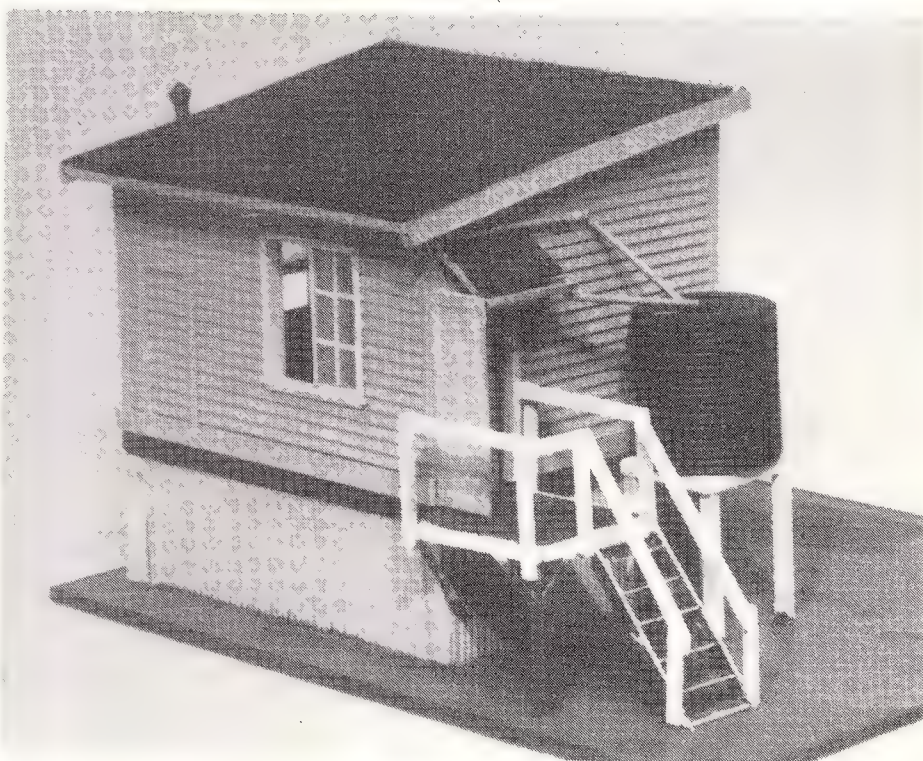
The photographs above and below illustrate the signalman's platform, used for exchanging the staff on down trains. Although the building of this platform is not covered in this article, the plan and photographs are included, for the reader who wishes to make a complete model of Tumulla.



paint brush (the two components being in situ) so that the MEK can flow between the joint. Drying time is 10-15 seconds but leave it for a few minutes to cure. The Super Glue is almost instant and with work so fine a component will usually end up stuck to a finger. Acetone will dissolve the joint or quickly rolling the shank of a drill between the stuck component and the finger will usually break the joint. In all instances ensure a flow of air around the work area. MEK is an anaesthetic type material and it will put you to sleep, nor is it healthy to constantly breath Super Glue fumes.

Tools

The list is not long for the materials used



The model, complete on a baseboard, waiting to be added to the layout.

were easily worked. A scale rule (which has millimetre graduations) is essential, as is a steel straight edge, a small 4" engineer's square, sharp knife (a scalpel — available from Keith Hudson's Modellers World — is very good), a very sharp pencil, a cutting base (section of pineboard), a flat work area (1/4" plate glass), a set of tweezers and a few 6" 2nd cut files make up the list.

Windows and Doors

Most of the techniques for this structure were simple. However, as no commercial parts were used, some basic detail was required for windows and doors. After the sides (which contained the windows and doors) had been cut to size the openings were cut out; about 0.25 mm was added to each dimension. It is important to work out what the full opening is; a glance at any domestic (wooden type) window will provide sufficient details. Simply, a window is a hole in the wall which is filled with a timber frame that holds glass. The opening is the area without the frame and accompanying glass.

The holes were cut out, always working on the waste material side of the marked line. The sides were then cleaned up with a file and, when everything was clean, sharp and square, the opening was lined with styrene strip. The styrene used for this should only be thin but at least the width of the material the opening is cut from. The wall was then placed, outside-face down on the flat surface, and the styrene strips were then glued (with Super Glue) to the walls of the openings. The edge of the strip must be hard against the flat surface, on completion, the edge of the styrene strip should be level with the outside edge of the exterior surface of the wall. Before the construction of the windows and door was commenced the decision was made as to whether or not they were to be opened or closed. With this structure there are two styles of windows; the end unit is double-hung while the window facing the track has two panes, one of which is sliding. The sliding window (in open position) was made as two separate sections; it was divided in halves by a section of 2" thick styrene that was fixed in place, on edge. A piece of clear acetate sheet was fitted and glued in this section; the outside edges were then lined with thin styrene strip to represent 2 1/2" boards. The window area was further divided up and sections of styrene (representing 1" timber) was glued in place to form the 6 panes of glass; white styrene was used to remove the need for painting. When the styrene strip was trimmed to size the section required was cut overlength and filed to fit. (MEK has sufficient strength to bond the joint). The open window was represented by a

section of styrene strip, bonded vertically, behind and adjacent to the fixed window so that the interior was visible.

The double-hung window was built up in a similar fashion, styrene strip was used to duplicate the timber (the finer the strip the better). The use of a fine paintbrush with the MEK, removes the possibility of spillage or shoddy application. A single application of MEK over the window, gave a cloudy, dirty, effect — most glass is dirty (or not quite as clean as clear acetate sheet).

Both the windows and doors have exterior weather strips, the size indicated on the photographs. This was represented by styrene strip and bonded with MEK or Super Glue (ACC).

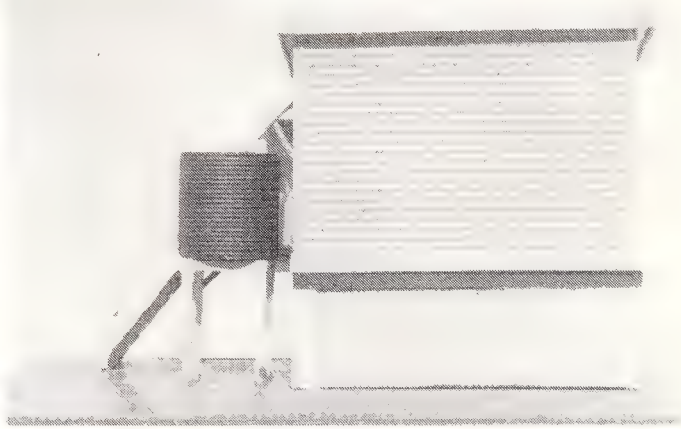
Foundations

As indicated, this structure was built as a likeness only, similar to a Hollywood film set where only the area that can be seen is actually built. To achieve this the building was constructed as a number of sections in the form of boxes. The lower section, later to be lined with vertical corrugations (Northeastern timber, 1mm thick and with 1mm corrugations), was a styrene box built to the overall floor plan less twice the thickness of the Northeastern corrugated panel. The height was at least the minimum height of the foundation and it is better if it is a little taller. It was necessary for provision to be made for the thickness of the ground materials, as the lower section was later bonded to the base and scenery was added. Once bonded and cured the corrugated strip was added to the sides (using ACC glue). It was trimmed to size when dry.

The floor section, which in reality is a covering around the floor-joists, was built up from a section of Northeastern timber strip 2.4 mm x 1.5 mm and formed a box (or square) shape. The inside of the box was filled with styrene, becoming the floor of the unit. The floor section was glued to the foundation section and both were bonded to a 2 mm thick section of styrene that will act as a mounting base for fixing the model to the layout in a level and true position. The platform was added to the foundations before the building was bonded onto the foundations.

The Building

Once again the formation of a box was used to fabricate the main part of the structure. The front and rear sections were cut to size from the dimensions on the plan, but provision had to be made for the corner strip. As 1.5 mm "thick" Northeastern timber siding was used the corner strip had to be bigger than the prototypical 2 1/2" square and, so, a section of



1.5mm×1.5mm square section was used. The front and back sections were cut, less twice the corner strip thickness. The side sections were also cut (oversized on the top sloping side) the length less twice the thickness of the corner strips. The corner strips were cut over-size and glued to the ends of the front and back sections. The sections were assembled dry (no glue) and the top of the sides cut to correct slope, using the upright dimension of the back and front sections for a guide. The corner strips were also trimmed to size.

The door and window openings were cut and components (windows and doors) built into place while the sides were separate sections. The sides were then bonded together. Additional strength was given to the corners by bonding a 3 mm square section of strip-wood, or balsa, into the inside of the corners — with the exception of where the door is.

The roof was a section of Northeastern corrugated siding (1 mm corrugations) and was bonded to a section of 1 mm thick styrene. The guttering was added to the front of the roof section and was a section of 2 mm channel strip from the Northeastern range. The fascia boards were added and the roof bonded to the top of the building. After other detailing the building was bonded to the base. ACC glue was used.

Note: before the building was bonded to the base the painting and balcony assembly was completed.

Interior Detail

As indicated, the model was built devoid of interior detail. However, the open window made it look too bare. To overcome this I took a figure — male, standing — from an Airfix Civilian Pack and painted and bonded it to the floor so that it appeared to be looking out the sliding windows.

Exterior Detail

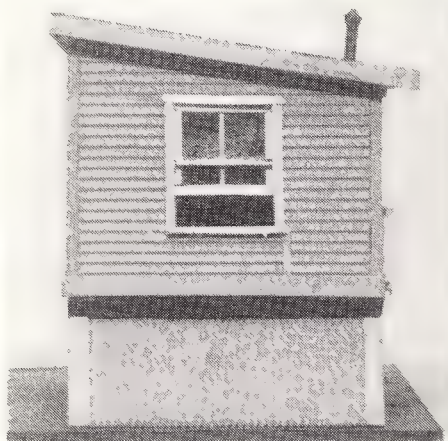
The wind protector (outside the door) was fabricated from styrene sheet and strips, while the awning over the door was fabricated from a section of corrugated siding. The supports were Northeastern timber off-cuts, and the fascia and gutter were similar to the main structure. The down-pipe was bent from 1 mm plastic rodding (from the Slater range). Additional detail was added using the photographs as reference for size of material and position. The chimney was made from brass section and fitted into a pre-drilled hole in the roof.

Balcony

The balcony, or raised platform, is very important to the realism of the structure and it must be secure or it will tend to be damaged. On the prototype one end of the balcony is suspended off the floor joist section, while the other end is supported by two foundations. The foundations are off-cuts of rail and are buried in the ground. Obviously it is difficult to bury the foundations on a model, but it is possible to drill holes in the styrene or timber base and push the foundations into place. 6"×6" timber was used in preference to the rail and it can be pushed up to the required height, bonded and then trimmed from below the base. The platform was an off-cut of 1 mm Northeastern scribed timber; it was cut to size and lined with 6"×2" timber. The platform was bonded in place before the building was added to the



Model photographs are by Graham Ball.



The above photograph illustrates an error (window too big) made during construction and noticed too late to rectify before the structure was completed.

foundations and then the handrails and supports were fixed in position. Fine strips of Northeastern timber were required as the base material on the handrails are 4"×2" and 3"×3".

The sides of the steps were cut to size and fixed into position; the steps were cut and bonded into position. Styrene was used for its basic simplicity. The stair railings were then added. Styrene strips, to represent corner mouldings on the corrugated fibro (around the foundations) and supports on the balcony, were also added.

Tank Stand

The tank stand was made in a similar manner to the platform; the supports were pushed up through the base. The tank was made from a section of 5/8" (16 mm) PVC conduit (as used by electricians). It was cut to size and the top and bottom were covered with styrene. A hole (12" in diameter) was cut in the top to represent the filler hole. Corrugated iron — the stuff put out by Gordon Duncan (as advertised in AMRM) was wrapped around the tank and fixed in place. Selley's Gell Fix is

recommended as the bonding agent. The corrugations on the tank should be parallel to the ground. When complete the tank can be bonded in position.

Painting

The model was painted before the building was bonded to the base, with a little touch up after it was finally fixed. The weathering effect was unusual for a heavy red dirt (as only western NSW can supply) adorns the front of the building; no doubt thrown up from speeding (down-hill trains). This was added to the model when the scenery was added. Dry red ochre and dust, on a dry brush, is very effective.

Humbrol paints were used as they were the closest match to coloured slides. The main building was Airfix (M14) yellow; the foundations (corrugation) was Humbrol (HS202) concrete; the roof was Humbrol (M30) green; the railings and step fronts were Humbrol (M34) matt white; the flooring area and weathered timber was Humbrol (M67); the interior of the building was Humbrol (M29) green and the tank was old silver. Suitable sized hand brushes were used.

Nameplate

The nameplate is yet to be added, basically because it will not be Tumulla; however an established method will be used. The white lettering will be white Letraset on a section of styrene that has been sprayed black. When the letters are in place and set with the correct lacquer the styrene will be cut to size. This will not necessarily be the correct size but it will be sufficient to give the correct impression in relation to the size of the lettering and the building it is to go on. The board will then be lined with styrene strip, on edge, to form a border and it will then be bonded in place on the building. Letraset 6 point Helvetica medium will be used.

Conclusion

There you have it. Total construction time was 12 hours, for various sections were being worked on while others dried. Unfortunately, errors were made and found too late (i.e. the model was fully assembled before it was noted that the end window was 12" too wide). Any error should be rectified if it is noticed in time. Soon the box will be in place helping to bring life to what is now a large area with just plain board and track.

Acknowledgments:

The author appreciates the assistance of the following, Alan Templeman, Jeff Moonie and Phil Collins for prototype details and photographs, David Howarth for preparing the plan and Stuart Livesey for assisting with the text.

Note

AMRM will attempt to present many differing styles of building in this series. If any reader has a suggestion or recommendation please feel free to draw the attention of AMRM staff to the specified building.

Editor.

FREIGHT WAGON FLEET RECODING

The Railways of Australia have recommended the adoption of a four-letter coding system for bogie wagons for use on the four systems that 'through-work' their rolling-stock. Each system, in adopting the recoding, has its own variation on the base four letter code and as such each system will need separate coverage.

VICTORIAN RAILWAYS

The Victorian Railways has instituted a classification system for bogie freight wagons which is based on recommendations made by Railways of Australia. The visual effect of the new policy will be that all bogie freight wagons intended for long-term service on the VicRail system are to receive a four-letter code for vehicle identification. For the moment, no renumbering of wagons is contemplated.

The first letter of the code will denote the system which owns the wagon. The letter "V" will be adopted as the initial cipher for VR stock; if the new coding system is later used by other rail authorities similar logical prefixes (such as "N" for New South Wales) could be expected. The second letter indicates the type

of wagon: twelve letters are used in this series, and their meaning appears in Table 1.

A third letter separates the type of wagon into particular groups, the array being a matter of discretion for individual systems. Thus, the tertiary classification adopted by VicRail would not necessarily be repeated in exact manner by other networks. This third cipher will indicate either the differing types of vehicles in the specific group or, in some cases, will indicate the principal commodity carried by a particular wagon type. The alphabet will be used to indicate the different types of wagons in the class: eg, In the open wagons where the second letter is 'O' the third letter will be:-

'A' for existing 'E' type wagons.

'B' for existing 'ELX' wagons without ridge gear.

'C' for existing 'ELX' wagons with ridge gear.
'D' for existing 'ESX' wagons.

The coding used to indicate the specific commodity carried by a wagon is indicated in Table 2, while the letter 'P' indicates that the vehicle is suitable for passenger train running.

The fourth letter of the code signifies the operational characteristics and capabilities of the wagon, according to the type of bogie employed. Details of this aspect of the new VicRail scheme appear in Table 3.

Table 4 gives the old and new codes for classes of freight wagons affected by the change. Vehicles carrying the EX, QCX and

TABLE 1
Basic Types of VicRail Wagons under
Secondary Code Letter

Code letter	Vehicle Type
B	Box cars
F	Flat wagons (standard)
H	Hopper wagons (btm d/charge)
L	Louved vans
M	Motor vehicle carriers
O	Open wagons
P	Hopper wagons (pne d/charge)
Q	Flat wagons (container & multi-purpose types, and flexi-van carriers)
R	Refrigerator cars
S	Livestock wagons and horse boxes
T	Tank wagons
W	Well wagons

TABLE 2
Allocation of Tertiary Code Letter to
Specific Wagons (According to Principal
Commodity Carried)

Code letter	Principal Commodity
A	Soda Ash
B	Briquettes or Bitumen*
C	Cement
D	Dolomite
F	Fertiliser or Flour*
G	Grain or Gas*
H	Hazardous Materials
Q	Quarry Products
S	Sand

NB: The letter 'P' when used as a tertiary code indicates that the vehicle is equipped for passenger train running.

TABLE 3
Operational Characteristics and
Capabilities of Wagons

Code letter	Description
A	Suitable for single gauge running at slow speed (maximum: 70km/h)
W	Suitable for bogie exchange (vehicles with 'low-profile' bogies only)
X	Suitable for bogie exchange (vehicles with standard bogies)
Y	Suitable for single gauge running at high speed (maximum: 100 or 115km/h)

Table 4
Reclassification of VicRail Freight Rolling Stock (Bogie Vehicles)

Box Cars:	Old Code	New Code	Flat Wagons:	Old Code	New Code	Hopper Wagons:	Old Code	New Code	
	BMF	VBAY		FVF	VQAY		CJ	VHCA	
	BMX	VBAX		TVF	VQBY		JCF	VHCY	
	BP	VBPY		TVX	VQBX		JCX	VHCX	
	BLF	VBBY		FQF	VQCY		GJF	VHGY	
	BLX	VBBX		FQX	VQCX		GJX	VHGX	
	BFW	VBCW		FCW	VQDW		JAF	VHAY	
Louvred Vans:	Old Code	New Code		QGF	VQEY		JBF	VHBY	
	UB	VLLA		QMX	VQFX		JDF	VHDY	
	UF	VLAY		Q	VFAA		JPF	VHFY	
	VF	VLBY		QF	VFBY		JQF	VHQY	
	VP	VLPY		QAB	VFCA		JSF	VHSY	
	VLX	VLCX		S	VFDA				
	VHX	VLDX		SX	VFEX		NN	VHWA	
	VSF	VLEY		SCX	VFFX		QN	VHNA	
	VSX	VLEX		QH	VFGA		FX	VPFX	
				QS	VFHA		JX	VPCX	
				SBX	VFJX				
Refrigerator Cars:	Old Code	New Code		SKF	VFKY	Tank Wagons:	Old Code	New Code	
	TP	VRPY		SKX	VFKX		Petrol. (white)	TW	VTQA
				SFX	VFLX		" "	TWF	VTQY
				SFF	VFLY		" "	TWX	VTQX
Open Wagons:	Old Code	New Code	Mechanically Covered	FPX	VFMX	Petrol. (black)	TW	VTOA	
	QR	VOWA			VFNX	" "	TWF	VTQY	
	E	VOAA			VFSX	" "	TWX	VTQX	
	ELX	VOBX*			VFTY		TW	VTOX	
	ELX	VOCX†					TWF	VTOA	
	ESX	VODX				Bitumen	TW	VTOX	
			Livestock Wagons and Horse Boxes:	Old Code	New Code	" "	TWF	VTOX	
*Cars without ridge gear				LF	VSAY	L.P. Gas	TW	VTBA	
†Cars with ridge gear				MF	VSBY	" "	TWF	VTBY	
Motor Car Carriers:	Old Code	New Code		FP	VSPY		TwX	VTBX	
	AX	VMAX						VTGA	
	ALX	VMBX	Well Wagons:	Old Code	New Code	Hazardous Materials not otherwise listed			
	ALP	VMPY		QB	VWAA		TW	VTHA	
	MBK/MBY	JMCY		QW	VWBA	TWF	VTHY		
				QMF	VWCH	TwX	VTHY		

QTF codes are exempted from the reclassification as they are intended for early retirement. The date of effect for commencement of the new scheme was 26/3/1979.

At present there is not evidence that VicRail intend to renumber any vehicles but it does appear that new vehicles will be zero filled, in that it will have four letters and three numerals for its road number, the seven digits no doubt for computerisation. (eg The new bogie timber wagons will be coded VFTY and the first unit in the class will be VFTY 001.

In the event that a vehicle is owned jointly by two or more systems the first letter will be 'J'. (eg The motor rail ex-MBK/MBY car carrier

will be coded JMCY.)

Although 'UF' class have been given the VLAY coding, the class will not be so coded for all vehicles were scrapped before the reclassification was implimented. There is also visual evidence that the 'UB' wagon will be coded 'VLAA' instead of the intended 'VLLA'.

With any recording of a large scale, mistakes are bound to occur, and to date at least one has for BLX 113 has been recorded to VBAX 113 instead of the intended VBBX 113. No doubt this error will be corrected in time.

References:

1. Victorian Railways Notice A.293/79 dated

16/3/1979.

2. Victorian Railways WTT Amendment 10/79 dated 5/4/1979.

Acknowledgements:

The data presented in this article was derived from information kindly made available to Peter Clark and the writers by the Victorian Railways. Thanks also to Dennis Hare, Robert O'Reagan, Peter Dawson and Bary Eadie.

This article was compiled from information supplied by Paul Rogers and Peter Vincent.

NEW SOUTH WALES PUBLIC TRANSPORT COMMISSION

While adopting the four letter coding for bogie wagons and brake vans, the NSWPTC have utilised the system similar to VicRail except that letters of the alphabet have different indications to VicRail. This article is being written very early in the adoption period, and some revision can be expected by the NSWPTC. Actual date of introduction has yet to be confirmed, although an 'NSPF' was sighted in Albury on May 7, 1979. (An 'NSPF' is an ex-ICX which has been painted red and fitted with two ICI explosive containers. The 'P' as a third letter does not appear to indicate 'suitable for passenger train running in NSW.)

The NSWPTC application of the system has the first letter of the code ('N') denoting the owner of the wagon, the second letter denoting the type of wagon (as outlined in Table A), the third letter denoting the variation of wagon type (as signified by the second letter) and although generally alphabetical order will follow the date of introduction of the wagon class, this must not be considered

mandatory for many variations occur. Some recodings, eg brake vans, have a more logical relationship to present codings (if that can be considered possible), where the first letter of the old coding is the third letter of the new coding.

The fourth letter of the new coding denotes the bogie type, which are:-

- 'A' — suitable for one gauge running only (slow speed)
- 'W' — Low level (profile) bogie exchange vehicle (high speed)
- 'X' — Standard bogie exchange vehicle (fast speed)
- 'Y' — Suitable for one gauge running only (high speed)
- 'F' — suitable for one gauge running only (fast speed)

The basis of this information has originated from the NSWPTC and it is believed that some of the new codings do not accurately follow the standard four letter coding format that was laid down at the Commissioner's Conference, and the adoption of the recoding will not be applied until the anomalies have been corrected. Further details and actual recodings will be published when a correct, accurate listing is made available from the NSWPTC.

Table A Basic Types of NSWPTC Wagons under Secondary Code Letter.	
Code letter	Vehicle Type
B	Covered vans, box type
C	Coil steel
E	Flat wagons under 15 metres long
F	Flat wagons over 15 metres long
H	Hopper wagons, coal or crushed rock
L	Louvre vans
M	Motor car carriers
O	Open wagons
P	Portland cement hopper wagons
Q	Container type flat wagons
R	Refrigerated wagons
S	Special use wagons
T	Tank wagons
V	Brake vans
W	Grain hopper wagons

Acknowledgements:

Special thanks to John Forsyth, Archives Officer for the NSWPTC for his assistance in this project, to Trevor Moore, and to Peter Vincent for his information that the recoding had commenced.

This article was compiled by Bob Gallagher and Graham Ahern.

N.S.W. VEHICLE COUNTDOWN — 12

In 1955, the N.S.W.G.R. had 75 'SHG' type bogie goods brake vans on its books. By 1978, only 1 vehicle of this series remained serviceable.

Paul Rogers

PTC MISCELLANY — 4

*Text by Paul Rogers
Research by Ross Willson*

N.S.W.G.R. Four Wheeled Goods Brake Vans — Circa 1935

Around 1935, the N.S.W.G.R. had the following four wheeled goods brake vans in operation:

HG (2 passenger compartment type):
8 units. Road Nos: 10819, 10824, 10828, 10829, 10848, 10857, 10927, 10982.

HG (1 passenger compartment type):
299 units. Road Nos: 378, 420, 1789, 3307, 3763, 3790, 4148, 4406, 4423, 4530, 4944, 5351, 5395, 5435, 5464, 5525, 5691, 5757, 5947, 6185, 6299, 7351, 7375, 7434, 7864, 9268, 10776, 10802, 10825, 10834, 10861, 10867, 10872, 10892, 10895, 10917, 10919, 10949, 10957, 10985, 10994, 12294, 12307, 12309-12331, 12333-12353, 14961-14970, 14972-15018, 15020-15029, 15032-15036, 15038-15077, 15739-15740, 15743, 15745-15838.

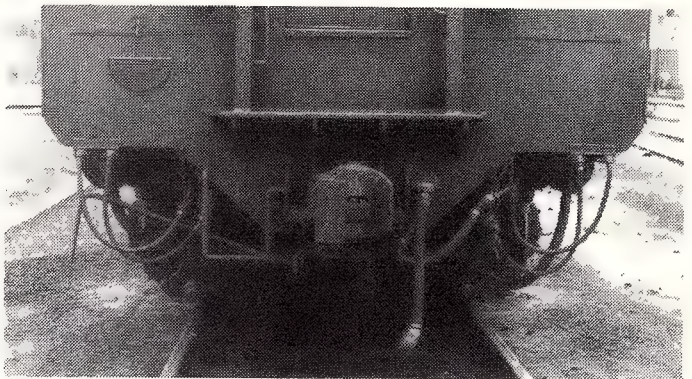
***CHG (light type):** 4 units. Road Nos: 181, 10855, 10916, 10964.

***CHG (heavy type):** 62 units. Road Nos: 4045, 7117, 7133, 7384, 7492, 7590, 7728, 7967, 8039, 8075, 8181, 8186, 8218, 8252, 8326, 8418, 8421, 8493, 8494, 8577, 8925, 9151, 9424, 9438, 10784, 10788, 10792, 10795, 10799, 10800, 10805, 10810, 10814, 10820, 10823, 10836, 10842, 10846, 10847, 10849, 10850, 10851, 10852, 10860, 10870, 10894, 10898-10901, 10906, 10926, 10929, 10948, 10977, 10980, 10987, 12354, 12355, 12356, 12357, 12358.

** CHG vans in italics not fitted with air brakes.*



SOME S CLASS CHANGES



Two modifications to the Victorian Railways S class diesels have been made since the article entered preparation for publishing in the March-April 1979 issue. S 304 has been fitted with a stirrup type step to give crews easier access to the hostler's end door. This step was fitted as a trial in April 1979. The Whistle cluster on S 307 was moved in 1978 from the roof onto the nose section. This is a similar location to the whistle on GM 31,32 and 34 when they were hired by the Victorian Railways.

Peter Vincent

Sir,
I am a Missionary working in a very isolated area of Papua New Guinea. Kamberatoro Mission is about 80 miles from Vanimo (Northern Coast of PNG) and about three miles from the West Irian border. The area is very isolated and the only means of communication with Vanimo or other places is by Radio Trans-mission. It is a mountainous area with jungle all around us. The people are still very primitive but they are wonderful people.

Every now and again we receive some newspapers, magazines, etc from Australia. They are always a few months old, but we appreciate them to read what is going on in Australia; it helps to overcome the isolation.

We received some newspapers today, and amongst them was your Model Railway Magazine. And so I started to think what a tremendous thing it would be to show these people a model railway set, especially the children. These people have not seen a locomotive or a railway or anything like that. They would be fascinated and it would be very educational for them. I do not have finance to buy a model railway set. I run the Mission on a shoe string, and at present it is a very frayed and battered shoe string.

Would any generous reader of your magazine be willing to donate a railway set to the people of Kamberatoro, it would be tremendous for them and I know that they would appreciate it.

Maybe, I am out of line in writing this letter to you, but after reading the magazine I thought it would be worth a try. Anyway no harm done if I do not get a reply.

Thank you for your time in reading this letter.

Father John Etheridge CP,
Catholic Mission,
KAMBERATORO,
PO Box 125,
VANIMO, W.S.P.
PAPUA NEW GUINEA.

Sir,

Having recently purchased Friedmont and MRCNSW kits (MRC being the better finished in quality) there are a few points that I feel would be a great assistance to the modellers.

Would it be possible for AMRA to approach these two manufacturers for them to include 1. a roof plan for the air vents; 2. the positioning of battery boxes and/or other undergear; 3. the positioning of the ends i.e. which end goes where, as the retailer is in the awkward position of explaining this point. I feel it is the 'manufacturer's responsibility on his set of instructions', as Workshop 5 did on theirs.

Those modellers who are unable to obtain railway drawings to finish the kits would be appreciative of them as we are not all experts and they would benefit, including ourselves who can obtain the drawings.

A further step in the right direction would be for them, when they are making up new kits from railway drawings, to include the above three points in the set of instructions.

Would they also consider moulding the roof complete with the air vents plus the floor in a separate piece with the undergear already moulded on with the starting holes for the bogies. I know this would be extra in cost but it would enable the model to be on one's layout a lot quicker. The basis for the floor is too soft and I use 1.5 mm thickness plastic acrylic which would be very versatile for the scratch-builder. It is also very pliable and can be shaped when heated. It can be drilled and tapped and can be cut by the same method as cutting glass with a metal scriber. For scratchbuilding it is ideal, requiring nil reinforcing like styrene. It can be painted with Humbrol or Floquil or any plastic paint for kits. This material can be obtained from Cadillac Plastics, 36-38 Dickson Ave, Artarmon, NSW. They are also open on Saturday mornings from 9.00am-11.30am wherein their off-cuts are sold at a nominal fee and some bargains in large off-cuts from 3 mm to 2 inch thicknesses, plus tints 3 mm to 6 mm and 3 mm thicknesses in colours can be obtained. Glueing of this material — I find that five minute Araldite is the best to use. Super Glues can be used as well.

Ken Rudd,
COMO, NSW 2226.

Sir,

I congratulate the editor and staff on another excellent issue of the magazine. Two articles give us an insight into the types of goods (freight) carried by the PTC of NSW, in the Jan/Feb, 1979 issue. "Shifting and Golden Grain" covers the wheat industries, and the amount of information contained would allow anyone to set a period for modelling.

"Milk Tankers" gives a good indication for operation of not now seen train consists. At Campbelltown empty tankers would arrive for the Dairy Farmers Co-op depots at Campbelltown and Camden.

The milk tanker for Campbelltown would be placed in the depot siding, whilst those for Camden were forwarded by the branch mixed train. To and from Camden the train (or Camden Tram as it was known locally), consisted of a 20 class loco (for the last few years of operation a 30 class), goods vehicles and a CCA branchline composite car. The load to and from

Narellan for a 20 class was 80 tons, or 160 tons, double-headed.

At Campbelltown the midday train (milk pot) collected the milk vehicles, having left Picton headed by a 32 class loco with two LFX or similar dogbox cars and a passenger brakevan. It picked up milk at Menangle and Campbelltown with the milk trailing the brakevan, and stopping all stations to Liverpool thence Regents Park, Strathfield and arriving Sydney steam platforms approx. 1.30pm. The vans and tankers were then moved to the Dairy Farmers' depot at Ultimo. There is a prototype operation for almost any consist.

I trust that these few notes will be of some benefit to some modellers.

Empty vehicles were returned to Campbelltown or Menangle on either a "stopping goods" or the local pick up service.

W. S. Rixon,
CAMPBELLTOWN, NSW 2560.

Sir,

I am writing this letter for two reasons, (a) to praise certain parts of the hobby trade, and (b) to complain about the standard of certain Australian products.

After reading the article on the building of MCV's I decided to build one. This was my first venture into Australian modelling. I purchased the parts from various model shops through the post. I was extremely pleased with the service of two of the shops; they opened an account for me with the money left over (I sent a cheque with a few dollars too much in each case to cover price rises and postage, etc). The third shop, a very reputable dealer who is featured in your magazine kept the excess money claiming it was for packaging. I was wondering how many other people have been ripped off in a similar manner. Surely this practice must put a few of the newcomers off scratchbuilding.

The second matter I would like to point out is regarding Friedmont kits. As I stated before I have started scratchbuilding. I have built 11 wagons so far. I tried to build them to my highest standard possible. A guards van was needed for the rear of my train and a loco for the front. When I purchased a Friedmont kit of a guards van I had every intention of buying a loco body and chassis to fit also. Upon inspection of the package I found that the kit did not come up to very high standards in finish. Every piece was warped and there was no detailed instructions as to the finish of the model. For a cost of \$6.00 I regard this as most unsatisfactory. A friend of mine stated that he has a box full of these models that are of a similar low standard. I find a price of \$6.00 extremely high when you consider the price of an Airfix kit with wheels, transfers and detailed instructions to finish the model. Most people I have spoken to have made mention of the low standard of the Australian models supplied (with the exception of Workshop 5 coaches and Prototype wagons) and they would never touch these models again. Surely the Australian supplier must realise that unless he raises his standard to compete with imported models they must eventually suffer in business.

I hope I did not bore you with such a long letter but I feel someone must speak out. I would be most grateful if you were to pass on my thoughts to those responsible.

P. Jenkinson,
Address unknown.

P.S. I have now started construction of a K class loco as illustrated in Issue 90 of AMRM.

Sir,

Have just received a copy of AMRM May/June 1979 and read article regarding CDY wagons, which include the recent painting of some of these vehicles black. The following news may be of interest or perhaps you already know about it. The latest PTC of NSW newsletter stated that all PTC wagons are to be painted Indian Red when going to shops for overhaul. In my duties I have seen 2 DOT tanks (loco oil) and two OSF flat wagons (container wagons — ED), all four being painted Indian Red. These have been seen around in the last six weeks (30/5/79).

Hope this is of interest.

Leo Hastings,
Grafton, 2460.

The painting of PTC stock Indian Red is not really news for the PTC did announce the fact in mid-1978 but only recently did they implement the decision, although the DOT tankers have been painted Indian Red for many years, but the dirt and grime that becomes attached to oil tankers seems to hide the real colour. Next time you see a Golden Fleece tanker look closely for the rich yellow colour.

Sir,

May I refer to your original comment regarding Australian brass versus US brass. I have had a little experience with both and, perhaps, my comments may help the debate along.

I have found good and bad in both; however, I believe that the US prototype offers better value for money. Notwithstanding my appreciation for Australian brass I submit that the US brass locos offer more; eg a can or coreless motor, full cab and

backhead detail and stainless steel rims for improved traction. I wonder what the next innovation will be — perhaps opening fire and smoke box doors. Does the Australian modeller have these things to look forward to? I wonder.

I model the Denver and Rio Grande Western in both standard and narrow gauge. The recent models by Westside, such as the K27, K28 and K36, are exquisite and I would say that they are the finest yet produced. These models incorporate every detail and run superbly. The standard gauge locos of this road are usually products of Korea and after running they have proved to be excellent runners and great mountain climbers — just as the prototypes were.

The Korean brass has not yet reached the sophistication of the Japanese but with a little TLC they can be excellent performers. The latest to reach my layout is the D&RGW M68 4-8-4 from Samhongs of Korea. The loco is so quiet and smooth when operating that it is possible to hear the tender trucks click across the rail joints.

I have found that many modellers are afraid to tamper with their brass locos but the best advice I can give is to pull them down. Find out why it won't run and check for binds etc as you rebuild it. I know we shouldn't have to do these things when you consider the price we have to pay but the fact remains that many locos do need this attention.

No matter if they are Australian or American prototype get stuck into them, get them running and we may see a lot more out and about doing what they were designed to do — pull trains. The Australian modeller may have difficulty in finding something to pull but that is another story.

Greg Archer,
Blacktown, NSW 2148.

Sir,

As you rightly state in your note regarding the Trade Practice Act, 1974, the responsibility for advertisements rests with the organisation submitting the advert. Therefore, I would suggest that the people placing the advert, (page 54, May/June, 1979, AMRM) for L. G. B. "GOSH-GAUGE" dispense with the part reading "The Worlds First and Only Indoor-Outdoor Railway".

While this may be a good catch phrase for selling, it is far from accurate, as Gauge 1, 1 3/4" gauge and either 10mm or 3/8" = 1"0" Scale, and 'O' Gauge, 1 1/4 gauge, 7mm or 1/4" = 1"0" Scale, have been operating as Indoor-Outdoor Railways long before World War II, and to some degree, particularly with Gauge 1, before World War I. A brief study into the History of Model Railways will prove this. Also, during the last few years articles on "OO" Gauge for Indoor-Outdoor railways have appeared in the Model Press.

I am pleased to note that you don't refer to L. G. B. Equipment as Gauge 1. As I understand, L. G. B. is built to a scale ratio of 1:22 (almost 1/2" = 1"0" Scale) of metre gauge equipment and the track gauge for this is 1 3/4" or 45mm (in round figures). Therefore, I would request L. G. B. suppliers and modellers please refer to your railway as a metre gauge railway to avoid confusion with the Gauge 1 people.

As a point of interest, Gauge 1 has a good following throughout the world, with quite a few members in Australia and New Zealand and an active association based in the United Kingdom.

J. MacMicking,
(Member Gauge 1 Model Railway Association),
Middle Cove, NSW 2068.

Sir,

After going from cover to cover of your March/April, 1979 issue of AMRM, may I make the following comments. I truly enjoyed reading this issue. It was fast reading as the topics covered were in good taste and understandable from the average modellers' view. It could be that this issue fit my particular modelling needs and desires.

I found the article by Clive Huggan very interesting as there were a couple of ideas I picked up that I had not seen printed in any of our domestic magazines. Item number 56 of his article I intend to put to use on my TT scale layout. It is very simple and inexpensive to install. Mr Oberg's story on diesel photography sounds a little like something I would do. I usually carry a camera around with me on the job to photograph any type of equipment I might come across in my travels. At this point may I say that I am employed by the Long Island Rail Road as a Bridge and Building Foreman and have been for 19 years. Mr Oberg has taken time to specify what lens to use and how to eliminate unwanted background scenery. I like his comment that we are railway historians. This is true to a point, because on the railroad that I work for I have photographed various subject matter only to find them or it later sold, scrapped, destroyed or altered.

I also enjoyed the article on the various types of signals used on the Australian railroads. I compared them to what we use on our system and find them very unique and interesting as some of them we have never used. The ones that I can relate to at the moment are searchlight, multi-aspect colour light and the low shunting light which we call a dwarf

signal, used mostly in our stations or interlockings. I am surprised to see in existence the use of signal lamps on the high or low switchstands. In America these lamps bring about a fair price as a decorator's item. I was also pleased to see the amount of advertising by different manufacturers, importers, and hobby shops. It shows to me that the hobby of model railroading is greatly expanding in Australia. By having large amounts of rtr equipment available it opens up the hobby for those who lack the immediate qualities to get down to fine detail right away. Once the door is open it is a whole new world and one finds that there are many modellers willing to share their skills and shortcuts. The advertisers are competitive and offer the best prices on a majority of imports. It also shows that they plan on keeping the hobby of model railroading alive and growing.

I look forward to receiving a copy of AMRM every other month and this last issue is a good example of the magazine being on the right track. The staff has got it all together and for a group of unselfish volunteers, I as an outsider congratulate you. Keep up the good record and I for one am expecting bigger and better things for your magazine and staff.

Chuck Spelina,
97 Southside Avenue,
Freeport, New York,
USA 11520.

Sir,

Further to the discussion on magazine prices in recent issues of AMRM, I would like to make a couple of observations from the point of view of a former manager of Windsor Publications in Melbourne (1976/77). The larger hobby outlets obtain their supplies direct from the publisher, particularly from the US. Some British publishers prefer to deal through an Australian agent, but on being told that it was 'directly or not at all' they would come into line. Newsagents and minor outlets receive their copies through an Australian publishers agency, and hence offer the magazines later and at a dearer price.

As far as direct importing goes, there is no duty or sales tax payable on magazines, nor is the postage significantly higher from Milwaukee to Melbourne than from Milwaukee to, say, Omaha, to take one example. The Omaha dealer will sell at the cover price, if he wants to stay in business, while the Melbourne dealer *should* convert to Australian currency and offer the magazine at A\$1.15 for US\$1.25 cover price. In practice, we offered US magazines at Windsor at cover price, as being near enough. Anyone importing their own magazines and selling them at more than the US cover price is on a good thing.

Dave Macartney,
Ballarat, Vic 3350.

Sir,

I would like to compliment the recent inclusion of articles dealing with the lesser modelled state systems. It is good to see the excellent contributions to modelling that many have made and this is through, to my mind, the essence of doing it yourself due to the absence of commercial support.

A correspondent, Mr Rick Derwent, wanted to know how popular S scale was in Australia. I can only say that in New Zealand it is very popular. I have lived in Christchurch for some time and Sn3½ is used for all New Zealand prototypes throughout the country. Railmaster and Gorilla kits are of Sn3½ gauge and S scale. This means that the easily accessible 16.5mm track is used.

The fact that 'S' scale is rare in Australia reflects the inflexibility of modellers who are not prepared to look for that uniqueness that adds a touch of class to a layout. With Tomalco introducing Sn3 flex-track, this will add another dimension to S scale modelling.

regarding the painting of engines used on the
As long as modellers look for alternative layouts, S scale will always be a force in model railroading. Thank goodness for that!

Schofield Jefferson,
Mount Colah, NSW.

Sir,

If I may enter the discussion on the price of imported magazines initiated by A. Willox (Jan/Feb 1979 issue), while it would appear that M. Stone (May/June 1979 issue) can justify the retail price tag of \$1.15 for the Railway Modeller in Australia (40p in UK) he has apparently missed the point of the original letter.

If the price tag of \$1.15 is justified then could it be that the following magazines are either sold at a loss as a service to the community or do they have their distribution subsidised by manufacturers or other interested parties?

Model Railways	40p (UK)	.95c (Aus)
Aero Modeller	40p	.95c
Model Boats	40p	.95c
Scale Models	40p	.90c
Modern Railways	45p	\$1.15
Airgun World	45p	\$1.10
Stamp Monthly	45p	\$1.05

The 90c required to purchase the AMRM, however, I consider as good a value as any of the above for the Australian scene with a large percentage of original articles and a low percentage of the same advertisements month after month, which can be found in some of the other magazines.

However, one point I would like to comment on in connection with trade 'rip-offs' is a recent advertisement in AMRM for a UK retail outlet quoting prices in Australian dollars, these prices averaging approximately 25% above the recommended UK retail price and up to 65% above those quoted by some of the discount suppliers. Both the rrp and the discount price would be reduced by 8% for overseas (ex-UK) orders as these are not subject to Value Added Tax (VAT). A call to your local customs officer will also indicate to you that the necessary duties and the tax applicable to the advertised items will result in prices not very different to many Australian stockists but with the added hassle that you can't just go round the corner to return any unsatisfactory item.

This may serve as a warning to examine the offer carefully before grabbing what appears to be a bargain at first sight.

M. Howie,
Tasmania.

Sir,

I feel that your correspondent, Mr Allan Fenn (AMRM May/June 1979) has been misinformed regarding the painting of engines used on the 'Centenary Limited' of the SAR during 1936. Should Mr Fenn care to consult the following books issued by the South Australian Division of the ARHS, namely '600' by Douglas Colquhoun, Ronald Stewien and Adrian Thomas, '621' by Ronald Steiwen and 'South Coast Limited' by Kim Bird, he would discover the following facts.

First, engine No 620, named Sir Winston Dugan, was on show at the Centennial Exhibition at the Wayville Showgrounds from 28/3/36 until early in June 1936. It was then returned to the Islington workshops for the completion of work needed to prepare the engine for its first road trial on June 16, 1936. This included the removal of the freight bogies from the tender and the fitting of the correct bogies. Three days later a further trial was held when the Governor of South Australia, Sir Winston Dugan, drove his namesake from Adelaide to Gawler and return.

After the completion of the trials No 620 took over the running of the 'Centenary Limited' on June 29,

1936 to be joined in September, 1936 by No 621, also painted green. These were the only two 620-class locos so painted, and later they reverted to the SAR black livery. Incidentally, engine No 621 has been preserved in working order for tours organised by the ARHS, and once again appears in green livery.

The initial trip of the 'Centenary Limited' was on March 7, 1936, and the loco which hauled it was No 605 which was, and I quote, "resplendent in a shiny coat of Hawthorn green". As you can see loco No 620 was not even completed at that time. At the same time two (2) 'S' class engines Nos 128 and 130, together with Rx234 were given the green livery.

A point which many railway enthusiasts may not know is that there were actually two types of Centenary cars and Centenary baggage cars. The original cars, which I was told, previously worked on the lines to Glenelg (the line was closed in 1929) had no centre exit gangway and were 55'4½" long over couplers, 10'10" in width and had 34' bogie centres. When remodelled, they were fitted with a combined toilet and washroom. On the later conversions of other suburban cars (originally) having a centre exit gangway, the opening was enclosed providing a toilet on one side and a washroom on the other side of the centre of the car. These cars were 59'4½" over couplers, only 10'4" in width and had 39'9" bogie centres. Consult SAR line drawings 41, 43, 44 and 45 for details.

Finally, I think you are turning out a first class publication. I do read all the ads, but I would not like to have to ferret out articles which are jumbled amongst advertisements scattered throughout the magazine.

Brian Johnson,
Paradise, SA.

Sir,

There is now quite a proliferation of models based on New South Wales practice. Yet there seems to be a glaring omission: the 2CM type bogie is not represented, despite the thousands of prototype vehicles fitted with this running gear or able to be so equipped. Any solutions to this problem?

Paul Rogers,
Flynn, ACT

'OVERLAND' SLEEPING CARS — 1

Roomette Cars

* (1st) Allambi (1949)
* (1st) Tantini (1950)
Mururi (1950)
Chalaki (1950)
Nankuri (1955)
Purpawi (1955)
Juki (1958)
Tarkinji (1958)
(2nd) Allambi (1972)
(2nd) Tantini (1972)

* In 1972, the Victorian Railways bought out the S.A.R. equity in these vehicles, which were then transferred to the Melbourne — Mildura 'Vineland' Motorail service under their new classifications of V.R. Sleeping Cars No. 11 and No. 12, respectively.

Paul Rogers

BOOKS

by John Bevan

It's a pleasure to see a book that looks as nice as this review's subject. Gary McDonald has written "In Praise of TRAINS in Australia". This book is mainly a picture book but does contain some text. First a description of the physical layout of the book. The book is 250mm wide by 310mm high and contains 80 pages between hard covers which have an attractive dust jacket.

The book is mainly photographs but they're not the ordinary type that you can expect in a railway book. All of them are colour and very nice colour at that. Most are large — they start at 70mm by 50mm and work up to double page spreads. Don't get the impression that the smaller size is common though; the normal size is more like 75% of a page.

The photographs were taken by 22

photographers including the author (whose first name changes from Gary on the title page to Garry in the list of photographers). The books' format is to have a few brief paragraphs about a topic such as (chosen at random) "Streamliners" which says a few words about the SAR 520 class and the NSWGR C38 class and illustrates the rest of the two pages with a full page photo of 3801 and two smaller photos of 520 and 523. It seems a shame that the only other major (my opinion) class of streamlined steam locos, the VR S class were scrapped before the days of reliable colour films. Although no dates of photos are given it seems that the majority of them are relatively recent, which of course excludes many topics.

Don't get the impression though that the book is only photos of steam locos. Many other aspects of Australian trains are shown including station buildings and some wagons. Page 45 has a delightful photo of the empty interior of a guard's van.

It's a little unfortunate that the section on electric railways is illustrated solely by VR equipment. There must be good photographs of the NSWGR electric locomotives and

suburban and interurban trains available. This omission is marred further by the incorrect identification of a Tulloch aluminium double deck suburban car (p.66) as stainless steel.

As a little diversion here I must complain about a senseless piece of jargon that seems to have crept into railway books, although this book seems relatively free from it. This is the use of the word "lifts" to describe the action of a locomotive in pulling a train. I suppose the writers of railway books use "lifts" when they want to write a different caption, but I think this is just laziness. The meaning of lift in the Oxford Dictionary all infer a vertical motion, not horizontal. It is possible to write good photo captions without substituting "lifts" for "pulls" so let's have them. The review book does contain a few "lifts" captions but on the whole the captions are better than usual.

I've left the best to last — this wonderful book sells for only \$6.95. It's a credit to its author, publisher and designer. Well worth buying.

"In praise of TRAINS in Australia" by Gary McDonald. Published by Rigby Limited Australia. Price \$6.95. ISBN 0 7270 0536 7

AMRM NEWS

Compiled by Bob Gallagher and AMRM Staff.

As these notes go to press we in Sydney are seeing the commencement of the petrol dispute and if it continues for any length of time there is little doubt it will delay the actual publication date of the July/August 1979 issue. We do use our private motor cars to travel to and from the magazine printer and not being able to get the magazine to the printers hand even for a day will hold up publication.

Boo Boos!

Recently one of our readers wrote and pointed out a few inaccuracies in a few plans, printed in AMRM. The letter was on a surprising subject for we go to great efforts to ensure that plans are published at correct scale, but despite all these efforts we failed. The SAR railmotor trailer (with horse compartment) was a little inaccurate and will be reprinted, when the errors have been corrected.

AMRM policy

Last issue Bradley Hinton, in the Mailbag section, suggested that AMRM should be publishing (prototype) observations, so that readers would be aware of railway operation and be able to refer to the 'observation' and use it for model operation. To date there has been no further correspondence and we at AMRM would like to raise the question... 'Is there a need?'. The fact of the matter is that there are publications in existence that specialise in recording railway observations and it would seem a pointless exercise for AMRM to enter into the field. NSW Digest, Newsrail and SAR Recorder are just a few of the ARHS based publications that record current and past railway happenings that can be referred to by any reader when the need arises. It is AMRM policy to publish a limited scope of prototype data but one of the aims is to supplement the prototype magazines and not replace them. Readers will note this with prototype notes on popular vehicles (eg NSWGR C38) where numerous books and magazines have recorded virtually all there is to know on the subject. For AMRM to repeat it all would only be a waste of paper and time, for the reader could readily be directed to the book.

As with Bradley Hinton's suggestion, there are publications covering the subject; there is little need for AMRM to cover the actual recording of railway

operations, but we would recommend any reader who has an interest in a state prototype to make an effort to purchase regularly, the local publication on prototype happenings. It does help one learn and keep in touch with the big stuff.

Editorial Comment

The observant reader will note that Allan Brown's name has been missing from the comment column for the last couple of issues. Despite what could be suggested by omission of Allan's contribution, he has not been replaced, become redundant or suffering a lack of inspiration, he is however, giving AMRM readers a chance to read the viewpoint of other AMRM staff members. AMRM is run by a number of modellers, a team which in total numbers nearly 40 modellers, and it would seem incorrect for the magazine to reflect only the policy of the editor and his close assistants.

Commercial News

The most newsy section of this issue would have to be the McBees advert for the local modeller of VR prototype is about to see some components which enhance his modelling. Passenger bogies, long and short axle boxes, Y class bogie side frames are the release of items in the next few months. Some of the components will be reviewed next issue.

Last issue we promised to review the Easi-Kits FO/BI kit this issue, but readers will find it missing. Unfortunately, an error during the painting of the kit has put back the review until at least next issue.

A Bob-tail T, to be the next FSM kit after the 53 class, is confirmed in the latest FSM press release. The South Maitland Railways' Ten class is a tank version of the standard goods locomotive of the NSWPTC (50 class ex-T class) and some of the class is still in service up Cessnock way. If the model is half as powerful as it looks on paper there will be no need for any double heading by steam or diesel.

Wagon Reclassification

Readers will no doubt read of the recoding of bogie vehicles in the VicRail fleet, and we will all look on with interest as other systems accept and adopt the same coding. In essence, for modellers it is another ball game and as such, for the keen modeller of Australian prototype, will be a major 'era' mode for modelling. It will be (no doubt) modern era... pre recoding or modern era... post coding. Phil Curnow was quick to point out that the new coding system is an example of how a modeller can implement his own coding system on his model system. Readers who like to keep up with what happens with the prototype should at least read the newsletter that covers the system they model. (eg NSW Digest for

NSWPTC, Newsrail for VR, Recorder for South Australia and Sunshine Express for QR). ALL publications are produced by the various state divisions of the Australian Railway Historical Society.

Help Wanted

AMRM is seeking the assistance of a reader who is interested in VR locomotives, both steam and diesel. The interested party would be required to research and compile articles on VR motive power, producing one or two articles a year. Would any reader interested please write to the Editor, AMRM, PO Box 235, Matraville, 2036

Assistance is also sought amongst modellers who follow QR and WAGR for these are rather barren areas in AMRM articles

Any other reader, who feels they have something to give, and are keen to join AMRM staff, are also encouraged to write to the editor, for it is always helpful to have someone ready to fill-in and allow some of the staff to have a break.

Worth Reading

For sometime now, this writer has been a solid reader of overseas modelling magazines, and shares with other readers some of the good and bad points of our overseas competitors, but only recently have I had the good luck to read 'Narrow Gauge and Short Line GAZETTE' a bi-monthly journal that is oozing with class. It is available at Windsor Publications and now at McBees. It is expensive but it is also value, try a back copy or two, usually stocked by Rail Mag, another AMRM advertiser.

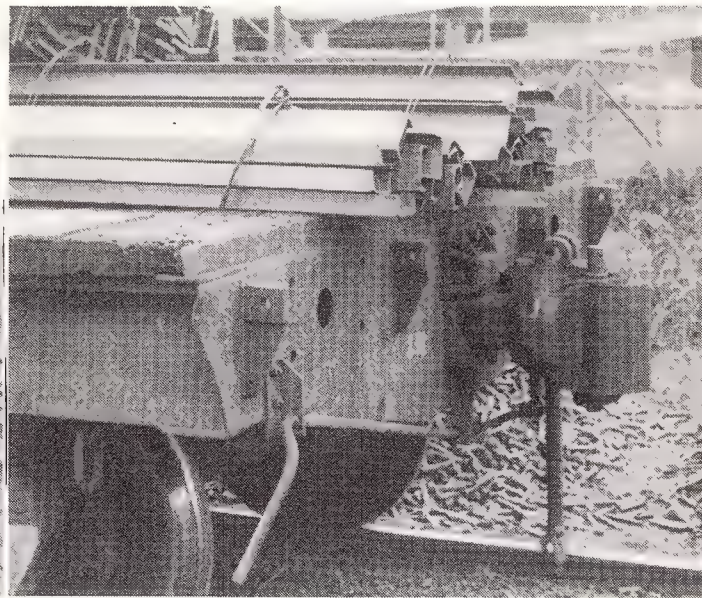
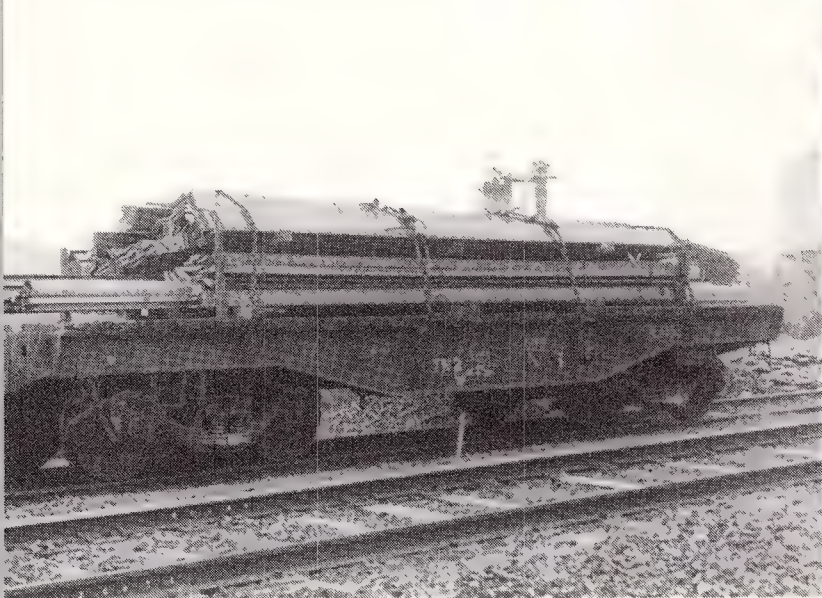
Late News

Have just had the opportunity to inspect the master patterns of FSM's D53 and Wampu tender. There is little doubt that the standard is still improving and the detail on the tender bogie side frames has to be seen to be believed.

Last issue we seem to have been a little too ambitious when we revealed part of the contents of a newsletter that suggested that some Workshop Five Models in kit form would soon be available. With egg on our face we, like most other modellers who appreciated the high standard of Workshop 5's work, wait with our fingers crossed hoping that we will soon see some positive evidence that they will once again become available.

Around the various gossip sessions and 'BULL' sessions, word is out that LIMA are soon to release the Indian Pacific power car, the TAM, the MFE and the SAR '8300' brake van. While not trying to pour cold water on the story we can say that of all the IP power car is close to release but until positive

Continued on page 53



IT ALWAYS HAPPENS

NSWPTC 'TE' Postscript

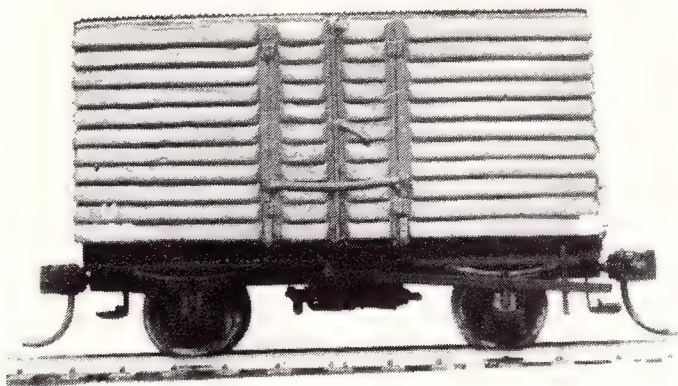
One problem with researching some articles for publication in AMRM is gaining access to vehicles that are small in numbers, and the NSWPTC 'TE' wagon covered in the MODELLING PROJECT in the May/June 1979 issue of AMRM was one of the 'difficult to unearth' vehicles, the writer, to the time of publication, only having once sighted one at Hexham, during a pouring rain storm and while motoring, rather hurriedly home to Sydney. After two years of searching we printed the article only to actually sight one, on a northbound fast freight (carrying sheet steel), two days after the magazine had been placed in the hands of the printer. Well a few weeks after publication of the May/June 1979 issue of AMRM we had the opportunity to photograph 'TE' 11153 at Mascot. The above two photographs are published to show some additional detail not previously shown, that being the additional side struts on the side sills and the four drilled tie-down struts welded to the head stock.

Bob Gallagher

'TE' WAGON

Readers who desire to model the 'TE' wagon featured in the May/June 1979 AMRM will be interested to know that 'Minitanks' produce a HO scale replica of the Leopard tank, the successor to the Centurion in the Australian Army. O gauge workers will find the several varieties of Leopard tank manufactured by Meccano in 1/50th scale for their 'Dinky' range of interest, these versions being No 692 — Battle Tank, No 696 — Anti-Aircraft Tank and No 699 — Recovery Tank. Incidentally, a Centurion tank has been preserved in Canberra as one of the external exhibits at the Australian War Memorial.

Paul Rogers



VR 11 1/2 ton U Van Body Kit in HO Scale. Sample obtained from the Arcade Signal Box, Coburg, Vic. Price \$1.20.

The 11 1/2 ton U van is one of the numerous classes of wagons and vans in service on the VR. In 1978 there were a total of 343 U vans in service divided into at least four varieties; two 16-ton styles and two 11 1/2-ton styles. This kit is a model of the 1226 cubic foot, 11 1/2 ton type with hinged side doors. The U is a louver van used to carry general goods and perishables.

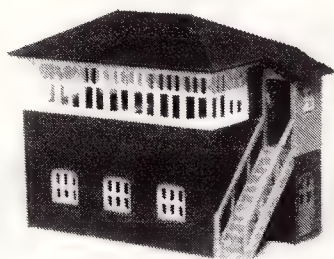
The kit, found while rumaging around in the Arcade Signal Box, consists of two sides and two ends and is packaged in an unlabelled poly-pack. The parts are cast in a polyester resin and, although there is evidence of heavy flash, the basic castings are free of blemishes. The rather crude, but fully descriptive, instruction leaflet shows how to assemble the body kit and these instructions were closely followed. Woodhill-Repeco super glue was used for initial fixing and this was followed by a bead of epoxy resin.

A section of 0.005 thou styrene was glued on as a roof and a section of 0.020 styrene was used for the floor. Four TB&J 'GY' style axle boxes (obtainable from the Arcade Signal Box) were drilled and added to the unit with 10 1/2 mm Cavalcade wheel sets. A centre sil, an air reservoir, tripple valve, brake lever, shunters steps and grab irons were added. The styrene roof was covered with galvanised iron (Duncan brand) using Selleys Gelfix. Kadec 5 & 10 couplings completed the model.

The unit was spray painted old silver for the roof, black for the under-frame and Floquil red primer for the body. Reference to Rex Little's article, Vans of the VR, in AMRA Journal No 84 was used to detail the model.

The kit, as built, is remarkably close to being dead accurate; quite a surprise with polyester resin castings. The kit assembles well although some special effort was needed to hide the joins between the sides and ends. For the cost of \$1.20 this would have to be the best bargain in 1979.

Bob Gallagher



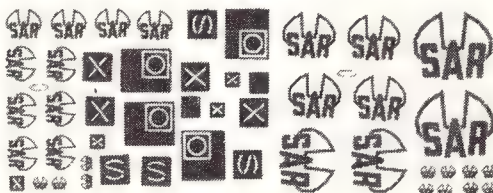
N Scale Signal Box by Graham Farish. Sample supplied by Hobbycraft, PO Box 88, Ivanhoe, Vic 3079. Price: \$8.50.

Locomotives and rolling stock may be the main attractions on model railways but it is scenery and structures that bring the layout to life. Many manufacturers give structures a low priority, but British prototype in N scale has been going through a steady growth commercially. GraFar (now Graham Farish) seems to be leading the field in breaking new ground and has added a number of structures found around the railway scene to their range.

The signal box is a pre-coloured plastic moulded unit. It is a model of the type of signal box found at main junctions. The signal box is 24" x 14" and is 22" high. The walls are red, the roof grey, doors are green, timber work brown and the windows are white. The window frames do not have any glass but this could be added, for the roof is removeable. The detail is superb and equal to most kits around. The unit is supplied in a clear box which is safe for transportation.

While the unit is based on British prototype it does resemble some units in Australia and would look at home on an Australian prototype layout.

Bob Gallagher



SAR Decals from Adelaide Model Railway Society Inc, c/o Mr G. Barclay, PO Box 446, Norwood, 5067. Price: \$1.00 ea.

Several years ago a model railway club at Mount Lofty produced a range of decals to their own design and included some SAR rollingstock emblems. They sold quickly and the club has now received a re-run of the SAR group. The linework has been more clearly defined and the improvement is quite noticeable. Two different groups of decals are available in red and black. One sheet has five different sizes of SAR piping shrike emblem while the other has less shrikes plus a selection of S, X and number plate designs. Unfortunately not all are representative of the black letter on a white background preferred by SAR. Hopefully another group of emblems such as explosives or insulated van will be produced and the X and S emblems could be reversed.

Please enclose a stamped addressed envelope as any profit from the sales are to assist club funds.

Phil Curnow

Fybren Models Catalogue/Price List. Sample supplied by Fybren Models, PO Box 88, Ivanhoe, Vic 3079. Price: not quoted.

The number of importers of model railway equipment in Australia is small and most handle a number of different brands. To actually keep in touch with some products it is necessary to read overseas magazines and then seek out the Australian importer. Others, like Australian Model Craft, advertise extensively in local publications to keep the public in touch with their products.

Fybren Models produce a price list covering their full range so that interested modellers can be aware of what is available. The publication is more a price list than a catalogue; it does not include any illustrations to help display the products.

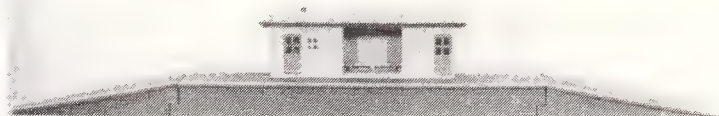
The range of products covered include the Fybren range of scenic and electrical products, ABS Models — metal rolling stock kits, BSC coach and rolling stock kits, CCW Manufacturing, Cockrobin, Fleischmann, Graham Farish, Kays, Langley Miniature Models, Merit, Mikes Models, Mopok, Pirate Models, Slaters, HHH, Tiny Signs, Wyatt & Tizzard and Wills Finecraft.

Bob Gallagher

Station Platform and Shelter in N scale by Graham Farish. Sample supplied by Fybren Models, PO Box 88, Ivanhoe, Vic 3079. Price \$9.50.

Station halts are rather common on many railway systems. They can be short in length, or long, depending upon the number of passengers using them.

This kit makes up a halt 47' in length and 15' wide. It has 29' ramps at both ends. The shelter is 30' x 7'6"

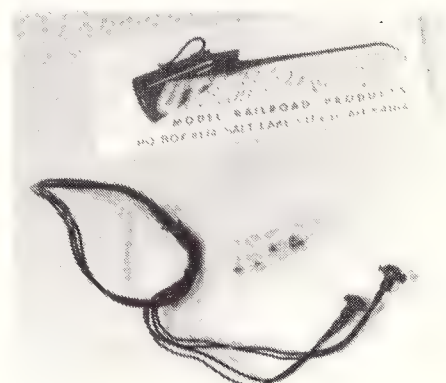


and has an awning, and is removable. Additional platform lengths are also available at \$1.60 each.

The platform is moulded in stone with a grey surface and light grey edging. The shelter is moulded timber, brown in colour with green doors and a white and black corrugated roof. The open shelter has a seat around the three walls. Colouring is realistic and detail is finely moulded and well finished.

This is a British model based on a British prototype, but with a colour change, it could represent one of the many halts found in NSW and Victoria.

Bob Gallagher



Marker Light Kit by Utah Pacific. Samples supplied by McBees Hobby Centre, PO Box 144, Coburg, Vic 3058. Price \$7.45.

Marker lamps are used, usually, on the locomotive and the end of the train. Their purpose is to show, in the darkness, a light that indicates either the front or rear of the train. In Australia, a white light marks the front of the train and red light the rear. Most diesel locomotives and brake vans have fixed marker lights with changeable lenses.

The units under review are US style marker lamps and have a 7" by 7" square shape. The instruction leaflet suggests mounting via the electrical cable lead mount. This mount needs a 3/32" mounting hole. There are 8 jewels supplied: 2 red, 2 amber and 4 green to be fitted into the holes in the lamps. The enclosed lamp is rated at 1.5 volts dc and must not be operated at a higher voltage. A wiring diagram is illustrated in the instruction leaflet.

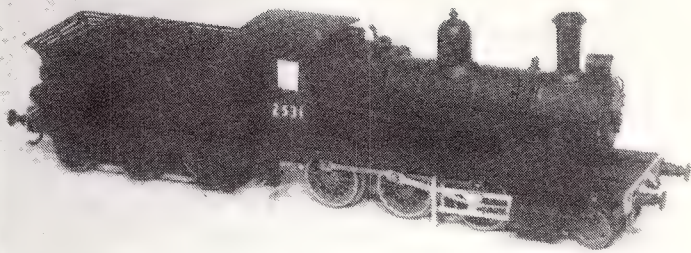
Bob Gallagher

NSWGR Z25 class locomotive and tender kit in HO scale by FSM, PO Box 169, Forestville, 2087. Price: \$80.00.

This kit is a redesigned version of the unit which was reviewed in the January/February 1977 issue of AMRM, the unit having a few mechanical problems and a few detail errors. Different modelling methods made a revamp of the model possible and to the credit of FSM they withdrew the unit from the market and replaced it with this new redesigned kit. Basically it is a different kit and as such will be handled as a new kit to the market in this review.

Introduced to the NSWGR in 1881 as the 205 class, the locomotive followed in the path of the successful 0-6-0 93 class (Z19 class). While not a fast unit, the Z25 class (reclassified in 1924) was quite capable of handling goods trains and eventually found its niche in the country branch lines. The 70 locomotives in the class were given Belpair fireboxes when reboilered, which commenced in 1911. Some units were fitted with superheaters which physically changed the appearance of the locomotive for the superheated unit had a longer smokebox and in one instance a different style of crosshead.

The model, as supplied by FSM, can be ordered in either the normal state of an extended smokebox version. As supplied the kit includes everything necessary to build the model except tools, glues, paint and decals. Most components are cast in a low temp alloy, but some detail items are lost wax



castings and some others are nickel silver alloy casting. The chassis is pre-drilled and assembled for fitment of the Romford drivers and gears and an ECM can-type motor. All holes requiring threading are tapped out ready for assembly.

The tender assemblies very easily once the minor flash has been removed but the manufacturer has not made any accurate provision for couplers and this must be done before final assembly, and glueing of parts is attempted. The instructions and diagram on the rear of the exploded diagram show how to bridge out the wheels and place them in the correct position.

The chassis is not too difficult to assemble although a little difficulty was encountered getting the mechanism to run. The secret here is to assemble the wheels and coupling rod, with the drive gear on the front axle and get the mechanism to run freely before the motor is glued in place. This can be accomplished by relieving any binds on the drive pins by gently filing out the hole that is causing the problem. The method of gluing the motor in place is a unique and satisfactory one for if it is not done correctly (as per the instructions) it can be cut loose and restuck in place.

Care must be taken when assembling the valve gear and the push rods to ensure that the push rods and the connecting rods do not hit and jam.

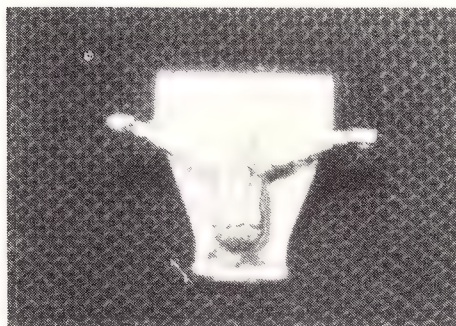
The locomotive body assembles rather easily and needs only a little cleaning-up, although it would be wise to assemble the boiler sections and fill any remaining gaps with body filler before adding any extra detail.

The glues used during assembly were the Repco-Woodhill Super glue and the Davis Fuller five minute epoxy. The kit could not be considered a very difficult/craftsman-only kit although it is felt that assembly should be tackled in a light hearted casual way, in other words the assembler will need to concentrate on his task.

As a working model the unit runs very smoothly and can haul a very heavy load, especially when compared with brass r.t.r. models. It represents the prototype closely and would be a good work horse on any layout.

Bob Gallagher.

Following comments from some readers that so called white metal kits are hard to assemble, AMRM will in a future issue, present an article that will describe in detail how to assemble the FSM Z25 class kit and its many associates. Ed.



component for the axle box is the device which carries the wheel bearing which in turn supports the axle and then the wheel. On the prototype, the frame of the axle box (sometimes referred to as the W guard) is attached to the wagon chassis. The axle box is supported on a slide (part of the W guard) and is suspended by a spring which is anchored to the wagon chassis. While some modellers are now developing model axle boxes which have the flexibility of the prototype, many modellers are still using a fixed-bearing unit on fourwheelers.

There are numerous axle boxes on the market, but none that represent the unit as used by the Victorian Railways on their more common four wheel stock (GY, RY, etc). The unit has a spring span of 4'3", has a journal box 12" x 9" x 11" and in most aspects represents the prototype. The unit is cast in metal and has a mounting lug which will sit on a plane 3.5mm above the spring supports. The unit is marked for drilling on the reverse side and can be nicely fitted with one of the British pin-point bearings (MGW etc).

The axle box is a welcome sight for the VR modeller, and also helpful for the NSWGR modeller who is not too particular whether the unit closely resembles the axle box used on the K/U wagon.

Bob Gallagher.

Creative Layout Design by John Armstrong. Published by Kalmbach Books. 126 pages. Price: \$13.95. My copy from St George Hobbies, 504 Rocky Point Road, Sans Souci, 2219.

This is the latest offering in the Kalmbach range of model railroad books. It is written by John Armstrong who, through the authorship of a previous book in this series (Track Planning For Better Operation) and by over thirty years of contributions to Model Railroader has established an enviable reputation as a designer of layouts.

Over these years John Armstrong has developed and emphasised the use of several concepts in layout design and these have become trademarks in his trackplanning. They have also greatly influenced general attitudes to layout design.

Greater use of the vertical dimension has probably been the authors' main contribution with multi-level benchwork combined with the use of the vertical loop or helix. Another Armstrong favourite is the loads in loads out idea involving for example loaded coal hoppers entering a power station on one part of the layout and then re-appearing out of a coal mine as loads destined for the power station again. Both these ideas have appeared many times in Model Railroader plans over the years. (For example see MR's latest project layout — The Clinchfield RR.)

A superficial reading of the book is enough to show that it is vintage Armstrong as he develops all his favourite concepts to the highest degree.

Turning to the book itself then it is, as the title suggests concerned with layout design and therefore does not provide "how to" information on such things as benchwork, scenery, etc which is more than adequately covered in other Kalmbach publications. Rather Armstrong takes five main areas and, in a chapter devoted to each discussion their influence on layout design. Layout location, scale and gauge, scenery, prototypes and the need for a unifying purpose are covered in turn.

As each of these influences are discussed the author develops at least one trackplan to illustrate the point he is making. In most of these plans Armstrong's old favourites appear. Thus under locations can be found layouts which fold up into walls, cupboards and roofs, layouts for trailers, backyards and split-level homes almost all involving

two and sometimes three levels of layout usually connected with vertical loops and in one case with tiltable sidings or what the author calls a vertical turnout.

Prototypes cover a wide range including a section and plan on British prototype. There are excellent discussions on lighting and scenery and an interesting summary of the major changes in railroad practice over the years under the heading "The Eight Ages of Railroadings".

All this leads up to John Armstrong creating the ultimate club layout in a theoretical 28'x28' clubroom. Benchwork with a zero level around 60", a raised S shape visitors walkway with hidden under the layout operators walkways and raised operating positions created for me, the vision of one of those sideshow mazes but this aside there are some innovative ideas in this section.

Part of this chapter is devoted to the development of the Ntrak module concept and even for a confirmed HO modeller such as myself I found the ideas here extremely interesting. I believe that the Ntrak concept is the major contribution N gauge has produced for the hobby so far and it is well documented in this section.

A final chapter of the book covers the need for a layout to have a unifying theme a topic which is probably more relevant in the US situation than in Australia where we tend to follow a particular state system.

Overall I very much enjoyed reading this book and found many challenging ideas throughout its 126 pages. My main complaints lie in basic disagreements with the approach of the author in several key areas of layout design. The stacked mains, multi-level benchwork combined with spiral loops etc to me result in overly complicated layouts with far too much trackwork crammed into the space available.

Trends in the past five years seem to be moving away from this approach to a much more open space style of trackplanning but this book certainly does not evidence this.

Developments in walk around control have also had considerable effect on track design recently. Their main advantage of giving the engineer a feeling of going somewhere is negated if all that is happening is a movement back and forward on the same section of the layout.

Again most of the trackplans in this book produce this undesirable effect.

I could go on with this disagreement in layout designing philosophy but this would detract from the good parts of this book and are a matter of personal attitudes anyway.

This book then would be of interest to any modeller planning a new layout. It is probably a bit advanced for the new convert to the hobby and I would suggest to anyone contemplating a new layout that alternative approaches to design be considered before any final plan is adopted.

On the production side the book is up to the usual Kalmbach high standard with lots of colour, good drawings and easy to read print. The only fault I found on the technical side was the loss of about 1/2" of a plan in the centre of the book which makes an involved track plan even harder to follow but this is not a major problem. A little bit expensive but then as the editor of this mag will tell you printing costs certainly are not going down.

Ron Cunningham

'WHX' Postscript—2

Since the publication of the 'WHX' article, these vehicles, along with the 'WH' cars, have reverted to their original capacity ratings.

Paul Rogers

ANOTHER USEFUL HINT

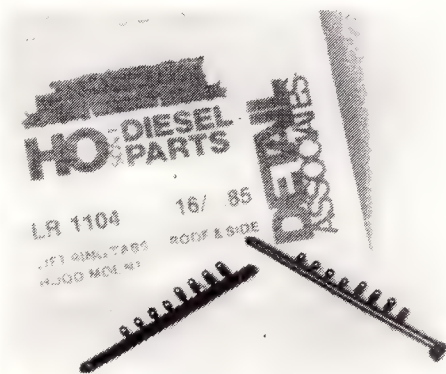
Modellers of the late nineteenth and early twentieth centuries may have occasion to incorporate a stagecoach run on their layout. The Preiser No. 499 set comprises 6 horses and coach, the vehicle being a good representation of the Concord type employed extensively by Australian operators, notably Cobb and Co.

Paul Rogers

AMRM NEWS.

Continued from page 51.

evidence, in the form of a mass produced model, is displayed, we at AMRM will not push the rumour, for although we are aware of what most manufacturers are proposing we are following the policy of waiting for the official word from the respective company, for many companies announce a proposed model many years ahead of any expected production date, and some unwitting modellers and shops become first excited and then disappointed at the non arrival of the model. While it is good to attend and contribute to 'BULL' sessions please remember that the name was derived for good reasons, and many of the points discussed are simply that ... 'BULL', or to the polite reader ... 'Not quite true'.



Lift Ring Tabs by Detail Associates in HO scale. Sample supplied by McBees Hobby Centre, PO Box 144, Vic 3058. Price \$1.10.

Lift ring tabs are usually found welded to the roof or sides of diesel body panels. They facilitate lifting the panels off the diesel chassis to allow repair to be accomplished.

The styrene mouldings are supplied in two styles, 4 of each to each sprue with two sprues in each pack. One type is 2mm long by 1mm wide with a 0.4mm hole; the other type is 1.4mm high by 1mm wide and also has a 0.4mm hole. They can be added to a model with either MEK or Super Glue.

Bob Gallagher

VR wagon axle journal for HO scale. Sample supplied by McBees Hobby Centre, PO Box 144, Coburg, 3058. Price: \$1.20 set of 4.

An axle box, on a four wheeler is a very essential

CLUBS

Modellers west of the mountains in New South Wales have started a new club, the Central West Railway Modeller's Association. Members come from the Bathurst-Orange growth centre and surrounding regions. Interests include American, European and Australian prototypes and scales range from live steam to N.

The club was established at the beginning of 1978 and is growing steadily. A highly successful exhibition was held in Bathurst during December and we plan to make it an annual event with the venue changing each year so that the whole of the region can be covered.

If you would like further information you can contact us through the Secretary, PO Box 316, Bathurst, NSW 2795.

The RAILWAY MODELLERS CLUB of QUEENSLAND announces that all future meeting, excepting Railway outings will be held on a Friday evening (second Friday of the month). The next meeting is:- August 10 at Brighton (7.30-9.30); September 8 (a Saturday at Clapham Railway yards).

For further details contact Peter Kelly, 8 Moorhouse Street, Bald Hills.

BACK ISSUES

The following issues are available subject to prior sale:-

- No. 1 — April/May, 1963 (Reprint)
- No. 39 — July/August, 1969
- No. 40 — September/October, 1969
- No. 41 — November/December, 1969
- No. 43 — March/April, 1970
- No. 44 — May/June, 1970
- No. 50 — May/June, 1971
- No. 54 — January/February, 1972

All the above are available at the price of 45¢ each, including post and packaging.

- No. 74 — September/October, 1975

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- No. 78 — May/June, 1976

- No. 80 — September/October, 1976

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- No. 82 — January/February, 1977

- No. 83 — March/April, 1977

- No. 84 — May/June, 1977

- No. 85 — July/August, 1977

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- No. 88 — January/February, 1978

- No. 89 — March/April, 1978

- No. 91 — July/August, 1978

- No. 92 — September/October, 1978

- No. 93 — November/December, 1978

- No. 94 — January/February, 1979

- No. 95 — March/April, 1979

- No. 96 — May/June, 1979

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An INTRODUCTION To SHARPER PICTURES

Continued from page 35

quality of the enlarger, or projector lens. Cheap lenses usually produce a blurred edge. It is folly to spend a small fortune on the best photographic camera equipment only to ruin all efforts through a cheap projection lens.

Footnote: A recent letter from a reader following my 'Product Testing' article in the May/June issue seems to indicate that he considered that the two types of film discussed were "a recommendation" that they be used for railway photography. I want to make it quite clear on this point that this, or any other product review that might be similarly treated is IN NO WAY a personal recommendation. (In fact the film I normally use the bulk of the time — colour or black and white, is neither those two products).

Incidentally, as articles for this magazine need to be in the editor's hands six months or so prior to publication, it must be revealed that the details for Ektachrome 200 were a little stale when published. This film has been replaced by Ektachrome 400 and any comments I made relating to the '200' do not carry for the '400' film. The latter is extremely touchy to use and initial results appear to be excessively contrasty.

Northern Model Railway Society
will be holding
an exhibition at
the Recreation Centre,
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on

Friday, 2nd November — 6pm-10pm
Saturday, 3rd November — 10am-10pm
Sunday, 4th November — 10am-8pm

Further details will be announced in the
Sept/Oct AMRM.

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MINIATURE steam train. The June Municipal Council has for sale one (1) miniature 5" gauge 4-6-2 wheel arrangement steam locomotive, "Fred Pascoe", Boiler No c.46 remodelled on Victorian Railway 'R' class, complete and in working order. Other equipment includes:- 1 battery operated electric blower and other parts, 4 wooden passenger carriages, approx 500 feet of dual 5" and 3 1/2" gauge railway track, 4 sets of points, 1 signal. The equipment can be inspected at the Council Chambers during office hours and further information can be obtained from the Town Clerk, (A. A. Raward), Council Chambers, Junee, NSW. Ph (069) 241766.

FOR SALE: HO brass locos — DMIR 0-10-2, painted \$175; United B&O 2-8-0 unpainted \$145; WMC SP 4-10-2 unpainted \$240; Gem B&M 4-8-2 factory painted \$180; NWSL Minaret 2-8-2T unpainted \$110; Set of 5 CP Kettle Valley coaches (Fujiyama) unpainted \$240. Changing to HO N3. Phone Max Gottlieb on (058) 73 4338 or write Box 413, Cobram 3644.

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The Annual Membership fee for the SCMR is \$8 from March to February and \$6 Joining Fee.

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For further details write to the secretary or contact the divisional representative.

Meetings are usually organised on the second Saturday on each month in New South Wales, Victoria and Queensland. For further details and location please contact the divisional representative.

New South Wales

August 11: Association AGM and demonstration of FSM kits at Narrabeena.

September 8: Operating session on a large club layout at Luddenham.

October 13: Demonstration of kitbashing at Carlingford.

Victoria

August 11: A practical look at timetables in operation.

September 8: Running session.

October 13: Demonstration of control board wiring at Laverton.

\$120. Locos advertised fast issue still available, except CPR.R. Fitzsimmons, 7 Woniara Ave, Wahroonga, 2076. (02) 48 4605.

HON3 LOCOS (brass) rtr and kits from \$40; HO N3 rolling stock rtr and kits from \$5. Track, Shinohara narrow and dual-gauge points and flexitrack. Sundry lineside kits and accessories. SSAFE for full list of as new bargains. Ralph Fairbrother, 3 Hoods Rd, Northfield, 5085

MINT HO brass. Offers please for 60-class Garratt (second series), 57, 48, 32 (second series). C. E. Thompson, 69 Limestone Ave, Braddon, ACT. 2601.

SWITCHES, momentary contact, 2 way modified PMG — 40 — \$2 ea posted. Baseboards, modular, new, custom built, hardwood frame, chipboard base, caneite top, 42" x 42", ideal dogbone ends for N or corners for HO/OO — 4 only — \$25 ea (Can send by rail only — frt fwd). Duncan, 18 Waratah Ave, Glenhuntly, Vic 3163.

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WANTED 'Speed Limit Twenty' by Downs, ARHS Bulletins for 1957, Plans for Victorian 2'6" gauge climax (02) 371 4483. Peter Robinson.

COMMERCIAL

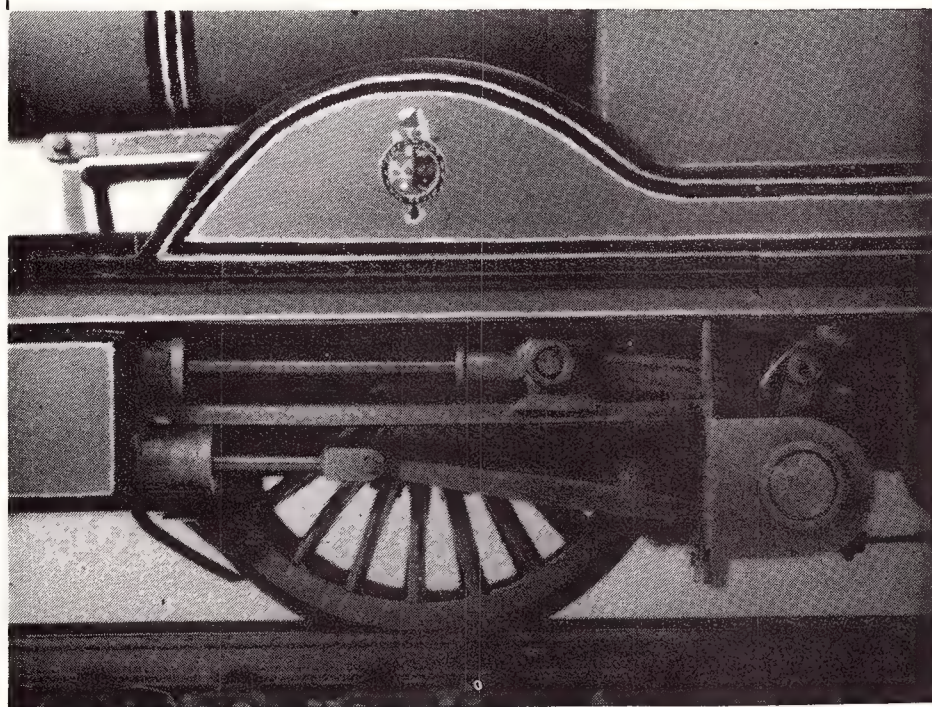
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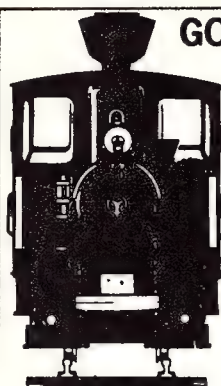
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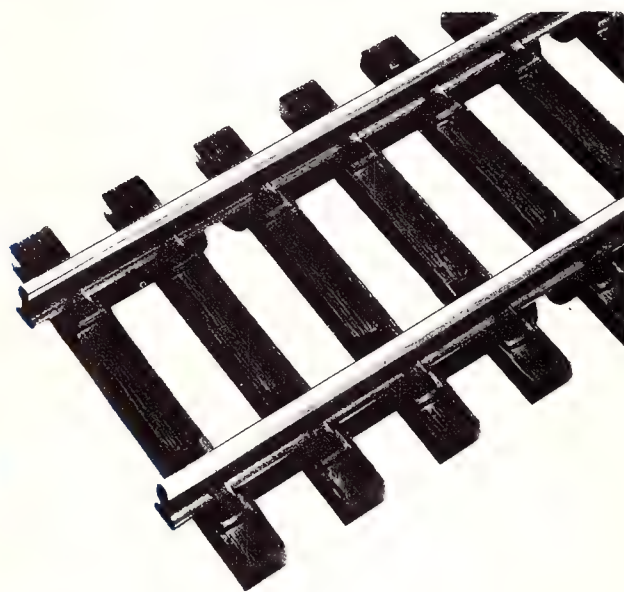
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O-16.5

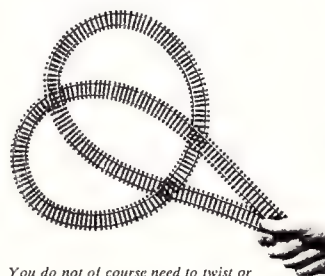
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Other News from The Dockyard . . .

Continued from page 2.

For N scale fans, more of the popular Sekisui/Con-Cor PA1 Diesel Locomotives, in a variety of road names, are due to arrive before these notes appear in print . . . Shinohara's new Code 70 N scale No 4 Wye and No 6 Left & Right Curved Turnouts are scheduled to arrive by July end . . . Full stocks of Champ Decals HO range are now available (excepting circus car decals). For Catalogue & Price List, posted, send \$1.90 . . . Good news for fans of the Southern Pacific, working in HO! Coming from Korea during the second half of 1979 are Alco Models' SP 'C15' Consolidation and SP 'MT2' 4-8-2 Locomotives. The latter in both Skyline and Standard versions . . . A little later, Sunset are scheduled to deliver the long awaited SP 'AC9' 2-8-8-4 articulated Locomotive . . . powered by 3 traction motors, Westside's HO Virginian 2-8-8-8-4 articulated Locomotive is now in the making, in Korea and will come in late '79. About the same time we also expect to have Key Models' HO D&RGW 2-8-8-2 articulated Locomotive . . . Along with the big Northern Pacific Z8's pictured above, Tenshodo are supplying first stocks of their new under floor type Motor Bogie. This is of 26mm wheelbase and having inside bearings, permits the modeller to fit side frames of his own choice. STOP PRESS: Late news indicates that 1979 second half deliveries will also include, for HO traction fans the ITS 273-283 (McKinley Empire) Combine and no less than 3 HO Union Pacific Caboose Cars, from Overland Models. Comprising 'CA-10' Welded Side, 'CA-11' Bay Window and 'CA-7' Riveted type . . . For O gaugers, the GN 'F8' 2-8-0 will be coming from Overland Models . . . From Tenshodo, in HO, will come the mighty GN 2-8-8-2 'R2' Series Locomotive in Glacier Park Livery.

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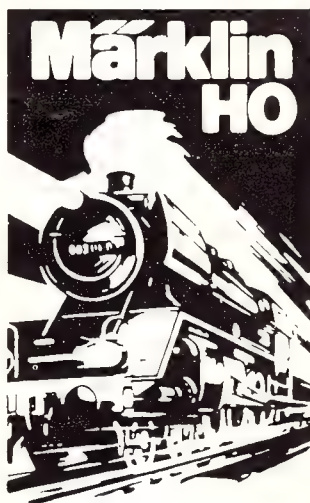
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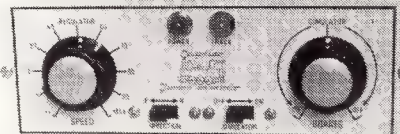
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FIGURES:

HO - PREISER, MERIT.
N - PREISER.

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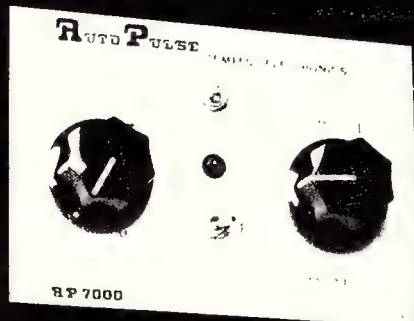
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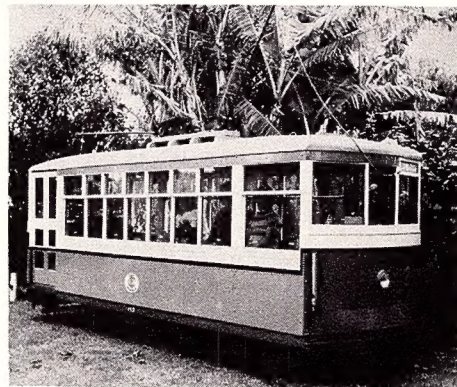
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Venue: FRENCHS FOREST PRIMARY SCHOOL
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Saturday, 11th August, 1979 — 9am to 6pm
Sunday, 12th August, 1979 — 10am to 5pm

ADULTS 80¢ — CHILDREN 40¢

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"O", "H/O", "OO" and "N" layouts.
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CANBERRA MODEL RAILWAY EXHIBITION & Mini-Convention

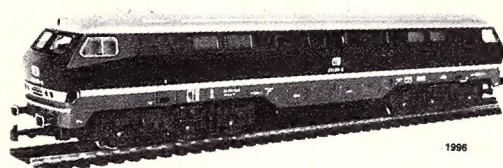
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Sat. 4th - Sun. 5th August
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229 "BONANZA FREIGHT"

HO/00



N

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9013	"Crescent Limited": Pacific Loco & three passenger cars - green	\$95.00

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9181	French Pacific, brown	\$75.00

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9315	Belgian Open Wagon	\$3.50
9318	70ft 8-wheel Flat car w/stakes	\$6.50
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9111	GM Calf - Santa Fe	\$15.00
9140	FM - Santa Fe	\$32.50
9143	FM - Pennsylvania	\$32.50
9144	FM - Southern Pacific	\$32.50

AMERICAN STEAM LOCOMOTIVES

9136	Mallet Y6B Articulated N&W	\$99.95
9186	Berkshire 2-8-4, Nickel Plate Road	\$77.50
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9199	Heavy Pacific, B. & O. "Capitol Limited", blue	\$65.00

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9573	Diner - Crescent Limited	\$8.25
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2316	O.T. Flat w/tanks - V. & T.	\$7.50

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FREIGHT SET

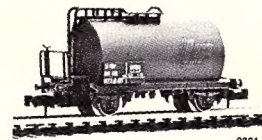
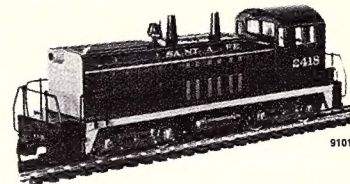
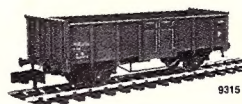
229	"Bonanza Freight" - Old Timer Loco, 5 freight cars & caboose	\$95.00
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A GREAT NAME TRAIN SET

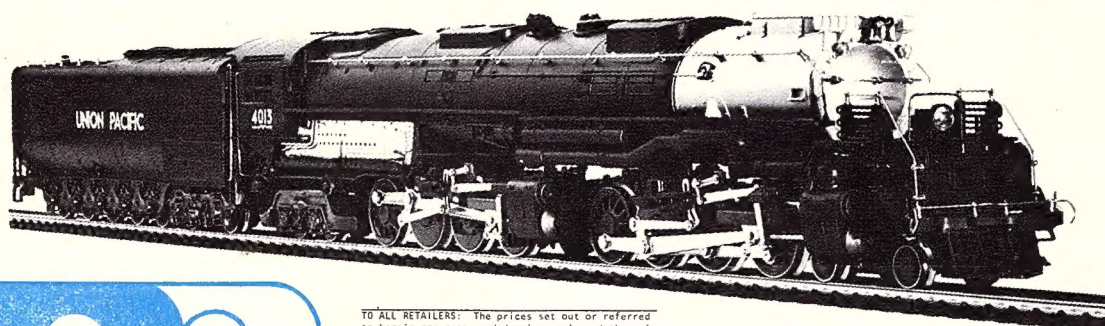
222	"The Crescent Limited" - Pacific Loco, combine, Pullman, Diner & Observation Car	\$145.00
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2724	Pullman, Pennsylvania	\$11.75
2725	Observation, Pennsylvania	\$13.50
2726	Diner, Pennsylvania	\$11.75
2843	Pullman, Milwaukee	\$11.75
2868	Tail Car, Illinois Central	\$11.75
2870	Roomette, Illinois Central	\$11.75
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